CAMELOT
PHASE ONE

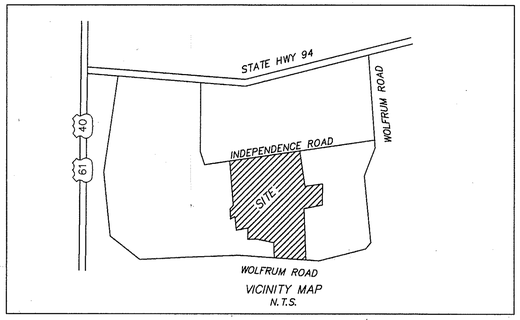
PART OF U.S. SURVEY 1787, FRACTIONAL SEC. 26, T.46N., R.3E.
ST. CHARLES COUNTY, MISSOURI

IMPROVEMENT PLANS

36 LOTS

CITY OF WELDON SPRING GENERAL NOTES

1. Gas, water and other underground utilities shall not conflict with the depth or horizontal locations of existing and proposed sanitary and storm sewers, including house laterals.
2. Underground utilities have been plotted from available information and, therefore, their locations must be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans, shall be the responsibility of the contractor and shall be located prior to grading or construction of improvements.
3. All filled places under buildings, proposed sanitary and storm sewer lines, and/or paved areas including trench backfills shall be compacted to 90% of the maximum dry density as determined by the "Modified A.A.S.H.T.O. Test" (ASTM D-1557) unless otherwise specified by the local governing authority specifications. All tests will be verified by a soils engineer.
4. All filled places in paved State, County or City roads (highways) shall be compacted to 90% of the maximum dry density as determined by the "Modified A.A.S.H.T.O. T-180" Compaction Test," (ASTM D-1557), unless otherwise specified by local governing authority specifications. All tests will be verified by a Soils Engineer.
5. No area shall be cleared without permission of the developer.
6. All grades shall be within 0.2 feet more or less of those shown on the grading plan.
7. No slope shall be greater than 3:1 and shall be either sodded or seeded and mulched.
8. All grading for this development shall conform to the recommendations in the soils report for this development prepared by a soil consultant.
9. The developer shall contract with a soil consultant firm registered in the State of Missouri during the grading operation to monitor cut and fills and to insure proper compaction has been achieved.
10. Owner/Developer assumes full responsibility as to the performance of the grading operation and assurance that all properties and roads will be adequately protected.
11. The total yardage for this project is based on a 15 % shrinkage factor.
12. The shrinkage factor is subject to change, due to soil conditions, (types and moisture content), weather conditions, and the percent compaction actually achieved at the time year grading is performed. As a result, adjustments in final grade may be required. If adjustments need to be made, the contractor shall contact Pickett, Ray & Silver, Inc., prior to completion of the grading.
13. Earth quantities were obtained from aerial grid mapping with contours at two foot intervals, with a tolerance of plus or minus one foot or one-half (1/2) contour interval.
14. The computed bid yardage is to finish grades as shown, and does not include the removal of subgrade where required.
15. Developer shall conform to Weldon Spring Grading and Erosion Control Ordinance.
16. If bales are destroyed by heavy rains, vandalism, etc., they are to be replaced immediately by Contractor.
17. Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible or during the next seeding period after grading has been completed. Refer to Weldon Spring Grading and Erosion Ordinance.
18. When grading operations are completed or suspended for more than 30 days, permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the designated officials recommendation.
19. Any wells and/or springs which may exist on this property should be located and sealed in a manner acceptable to the City of Weldon Spring.
20. All existing trash, debris and broken concrete pieces on site must be removed and disposed of off-site.
21. Debris and foundation material from any existing on-site building or structure which is scheduled to be razed for this development must be disposed of off-site.
22. Soft soils in the bottom and banks of any former pond sites should be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed public right-of-way locations or on any storm sewer location.
23. Development is not located within the 100 Year Flood Plain Limits as shown on the F.E.M.A. Map Panel No. 29183C 0115D.
24. All existing improvements damaged or destroyed during construction shall be replaced or repaired in kind.
25. Polyvinyl Chloride (PVC) shall conform to the requirements of ASTM D-3034 Standard Specifications for the PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings, SDR-35.
26. All P.V.C. sanitary sewer pipe to be SDR-35 or equal with clean 1/2" to 1"granular stone bedding uniformly graded. This bedding shall extend from 4" below the pipe to the pipe to the springline of the pipe. Immediately backfill over pipe, this should consist of the same size or minus stone from springline of pipe to 6" above top of pipe.
27. All exterior sewer manholes shall be waterproofed on the exterior in accordance with Missouri Department of Natural Resources specifications. 10 CSR-8.120(7)(E).
28. Brick shall not be used on manholes.
29. The minimum vertical distance from the low point of the basement to the flowline of a sanitary sewer at the corresponding house connection shall not be less than the diameter of the sanitary sewer plus a vertical distance not less than two and one-half feet (2-1/2').
30. Storm sewers 18" diameter or smaller shall be A.S.T.M. C-14.
31. Storm sewers 21" diameter or larger shall be A.S.T.M. C-76, Class II.
32. All storm sewer pipe under pavement, regardless of size, shall be reinforced concrete pipe (A.S.T.M. C-76, Class III) unless noted otherwise on the plans.
33. All manhole and catch basin tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor. At the time of construction stake out of the sewer lines, all curb and grate inlets will be face staked. If normal face stakes fall in line with sewer construction, the Engineer will set these stakes on a double offset. It shall be the responsibility of the sewer contractor to preserve all face stakes from destruction.
34. All standard street curb inlets to have front of inlet 2 feet behind curb.
35. All grout for rip-rap shall be high slump ready-mix concrete.
36. The Duckett Creek Sewer District shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspection.
37. All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
38. All storm and sanitary trench backfills will be water jetted. Granular backfill will be used under pavement areas.
39. Easements shall be provided for storm sewers, sanitary sewers and all utilities on the record plat. See record plat for location and size of easements. This does not apply to house laterals.
40. Hazard markers will consist of three (3) standard specification, "Manual on Uniform Traffic Control Devices," and of roadway markers mounted on two (2) pound "U" channel sign post. Each marker shall consist of an eighteen (18) inch diamond reflectorized red panel. The bottom of each panel shall be mounted a minimum of four (4) feet above the elevation of the pavement surface.
41. All street construction shall meet the City of Weldon Spring specifications.
42. All existing and proposed monuments, as required, will be shown on the Final Record Plat.
43. Water lines, valves, sleeves, meters and etc., shall meet all specifications and installation requirements of the local governing authority.
44. All cast iron pipe for water mains shall conform to A.W.W.A. specification C-106 and/or C-108. The cast iron fittings shall conform to A.W.W.A. specification C-110. All rubber gasket joints for water cast iron pressure pipe and fittings shall conform to A.W.W.A. specification C-111.
45. All water hydrants and valves shall be cast iron and installed in accordance with plans and details.
46. All P.V.C. water pipe shall have a minimum pressure rate of PR-200 or SDR-21.
47. NOTE: The grading and elevations shown on the grading plans are for construction purposes only. Finished grades and slopes will vary from those shown on the plans depending upon the location, size, and type of house built on the lot. However, care should be taken to insure that finished grading conforms to drainage area maps.
48. This tract is served by:
    Missouri-American Water Company
    Duckett Creek Sanitary District
    Cuivre River Electric
    Southwestern Bell Telephone
    St. Charles Gas Company
    Cottleville Fire Protection District
    Francis Howell School District
    St. Charles Post Office
49. All pipe shall have positive drainage through manholes. No flat base structures are allowed.
50. The contractor shall prevent storm, surface water, mud and construction debris from entering existing sanitary sewer mains.



VICINITY MAP
N.T.S.

LOCATION MAP

DRAWING INDEX

Sheet	Description
1	COVER SHEET
2-3	FLAT PLAN AND GRADING PLAN
4-5	SANITARY SEWER PROFILES
6-7	STORM SEWER PROFILES
8-10	STREET PROFILES
11-12	DRAINAGE AREA MAPS
13-17	CONSTRUCTION DETAILS

LEGEND

Sanitary Sewer (Proposed)	Sanitary Structure	R.C.P.	Reinforced Concrete Pipe
Sanitary Sewer (Existing)	Storm Structure	C.M.P.	Corrugated Metal Pipe
Storm Sewer (Proposed)	Test Hole	C.I.P.	Cast Iron Pipe
Storm Sewer (Existing)	Power Pole	P.V.C.	Polyvinyl Chloride
8"w Water Line & Size	Light Standard	V.C.P.	Vitrified Clay Pipe
EX W Existing water line	Double Water Meter Setting		
Tee & Valve	Single Water Meter Setting	C.O.	Clean Out
Hydrant	C.I. Curb Inlet	V.T.	Vent Trap
Cap	S.C.I. Skewed Curb Inlet	T.B.R.	To Be Removed
18 Lot or Building Number	D.C.I Double Curb Inlet	T.B.R.&R	To Be Removed & Relocated
x Existing Fence Line	G.I. Grate Inlet	T.B.P.	To Be Protected
Existing Tree Line	A.I. Area Inlet	T.B.A.	To Be Abandoned
Street Sign	D.A.I. Double Area Inlet	B.C.	Base Of Curb
Existing Contour	C.C. Concrete Collar	T.C.	Top Of Curb
Proposed Contour	F.E. Flared End Section	T.W.	Top Of Wall
Grouted Rip-Rap	E.P. End Pipe	B.W.	Base Of Wall
End of Lateral	E.D. Energy Dissipator	(TYP)	Typical
Asphalt Pavement	M.H. Manhole	U.N.O.	Unless Noted Otherwise
Concrete Pavement	C.P. Concrete Pipe	U.I.P.	Use In Place

Approved contingent on water line approval 11/28/95

SITE BENCHMARK

BM #1
R.R. SPIKE S.W. SIDE OF THE POWER POLE
1' HIGH ON THE N. SIDE OF INDEPENDENCE
HIGHTS ROAD AT THE N.W. CORNER.
ELEV. 585.67

REVISIONS

OCTOBER 25, 1995 STREETS & SEWERS

PICKETT RAY & SILVER

Civil Engineers
Planners
Land Surveyors

333 Mid Rivers Mall Dr.
St. Peters, MO 63376
397-1211 FAX 397-1104

ENGINEERS AUTHENTICATION

The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in the project and specifically includes revisions after this date unless reauthenticated.

PICKETT, RAY & SILVER, INC.

Signature 11-17-95 Date

STATE OF MISSOURI HAROLD J. BARTCH NUMBER E-11751 REGISTERED PROFESSIONAL ENGINEER

DEVELOPER

WHITTAKER CONSTRUCTION, INC.
335A MID RIVERS MALL DRIVE
ST. PETERS, MO. 63376
970-1511

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DRAWN KJD DATE SEPT.,1995
CHECKED DATE
FIELD BOOK 568
PROJECT # 94-120
JOB ORDER # 33753

1 / 17

REV. 1-27-95 L.I.G.E.
REV. 10-25-95 G.S.

CAMELOT
GRADING PLAN

Sept. 1995 — Job No. 94-120

COUNTY COURT BK 14 / PG 496-497 — INDEPENDENCE (40' W.) ROAD

N63°17'39"E 656.59 — N63°17'39"E 1185.41

PHASE ONE

ENCHANTED COURT (50' W.) — 26' W. CONCRETE PAVEMENT

GRAIL CASTLE COURT (50' W.) — 26' W. CONCRETE PAVEMENT

CAMELOT DRIVE (50' W.) — 26' W. CONCRETE PAVEMENT

TOWER HILL COURT (50' W.) — 26' W. CONCRETE PAVEMENT

Trees To Remain

Grading Limits

Existing Trees To Remain

Grading Limits (Typ.)

End 4'W. Concrete Sidewalk, Begin 4'W. Wood Chip Pedestrian Path (Typical)

CENTER 16' W. ROADWAY EASEMENT

BASIN "B"

GRAPHIC SCALE
50 0 50 100
(IN FEET)
1 inch = 50 ft.

THESE DEVELOPMENT PLANS ARE PRELIMINARY. FIELD CONDITIONS AND THE JUDGMENT OF THE GENERAL CONTRACTOR WILL CAUSE CHANGES FROM THE DEVELOPMENT PLANS, INCLUDING, WITHOUT LIMITATION, GRADES, TERRACES, SLOPES, ELEVATIONS, PLACEMENT OF SEWER LINES, MANHOLES AND INLETS. THE GRADE OF EACH LOT WILL CHANGE FROM THESE PLANS WHEN THE HOME IS PLACED ON THE LOT. YOU MAY NOT RELY UPON THESE PLANS AS BEING FINAL BECAUSE CHANGES WILL OCCUR. IF YOU HAVE QUESTIONS REGARDING THE PLANS, CONTACT THE GENERAL CONTRACTOR IN CHARGE OF DEVELOPMENT OF THE SUBDIVISION.

941200ES

CAMELOT
GRADING PLAN

Sept. 1995 — Job No. 84-120

Rev. 12-25-95 GLS
Rev. 11-27-95 L&S

SEE SHEET 2

RODELLE WOODS SUBDIVISION

1731.86'

PHASE ONE

LEGEND (50'w.) COURT

CORNWALL (50'w.) DRIVE

CAMELOT (50'w.) DRIVE

LANCELOT (50'w.) DRIVE

GUINEVERE (50'w.) DRIVE

Grading Limits Typ.

Existing Trees To Remain

EXISTING HOUSE TO REMAIN

35' BUILDING LINE

55' BUILDING LINE

BASIN

50'W. EASEMENT TO SHELL PIPELINE CORP. BK 230 PG 117, BK 235 PG 15 & BK 1742 PG 324

GRAPHIC SCALE
50 0 50 100
(IN FEET)
1 inch = 50 ft.

THESE DEVELOPMENT PLANS ARE PRELIMINARY. FIELD CONDITIONS AND THE JUDGMENT OF THE GENERAL CONTRACTOR WILL CAUSE CHANGES FROM THE DEVELOPMENT PLANS, INCLUDING, WITHOUT LIMITATION, GRADES, TERRACES, SLOPES, ELEVATIONS, PLACEMENT OF SEWER LINES, MANHOLES AND INLETS. THE GRADE OF EACH LOT WILL CHANGE FROM THESE PLANS WHEN THE HOME IS PLACED ON THE LOT. YOU MAY NOT RELY UPON THESE PLANS AS BEING FINAL BECAUSE CHANGES WILL OCCUR. IF YOU HAVE QUESTIONS REGARDING THE PLANS, CONTACT THE GENERAL CONTRACTOR IN CHARGE OF DEVELOPMENT OF THE SUBDIVISION.

941200E5

CAMELOT
SANITARY SEWER PROFILES

SCALE
HORIZ: 1" = 50'
VERT: 1" = 10'

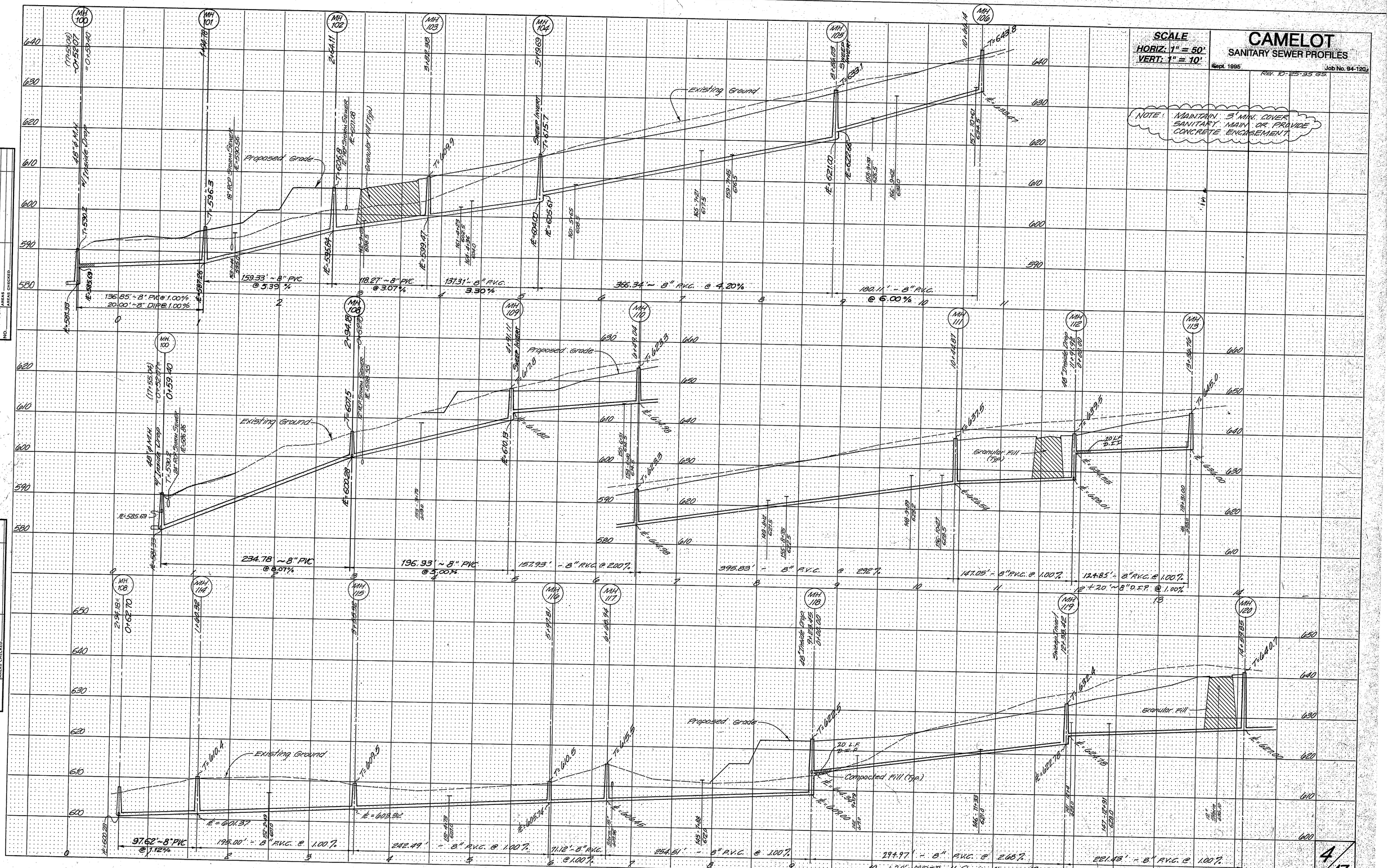
Sept. 1995 | Job No. 94-120

Rev. 10-25-95 GS

NOTE: MAINTAIN 3' MIN. COVER SANITARY MAIN OR PROVIDE CONCRETE ENCASEMENT.

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

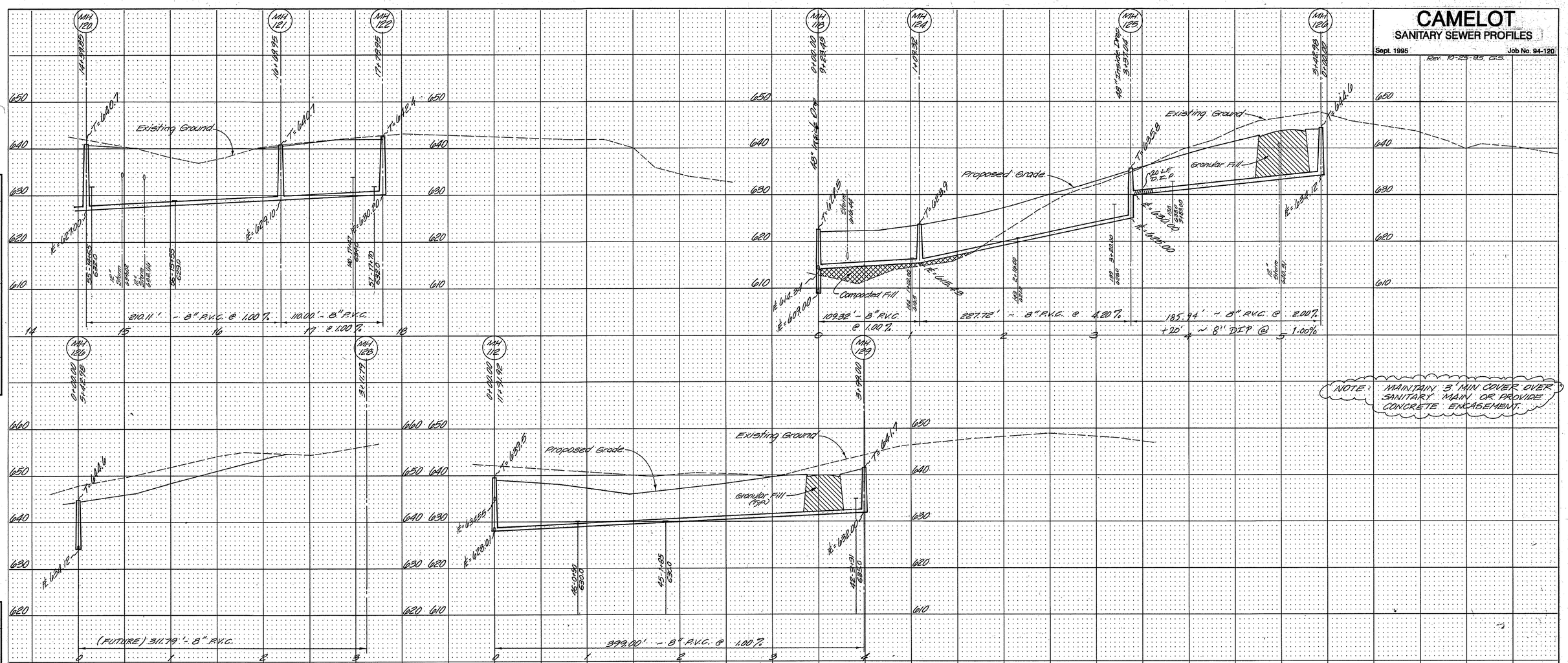
ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE



CAMELOT
SANITARY SEWER PROFILES

Sept. 1995 — Job No. 94-120

Rev. 10-25-95 GS



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ORIGINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

SCALE
HORIZ: 1" = 50'
VERT: 1" = 10'

5/17

CAMELOT
STORM SEWER PROFILES

Sept. 1995 — Job No. 94-120

Rev. 10-25-95 G.S.
Rev. 11-27-95 L.S.S.

FINAL SURVEY — SURVEYED — PLOTTED — NOTE BOOK — TEMPLATE — AREAS — NO. — AREAS CHECKED — BY — DATE

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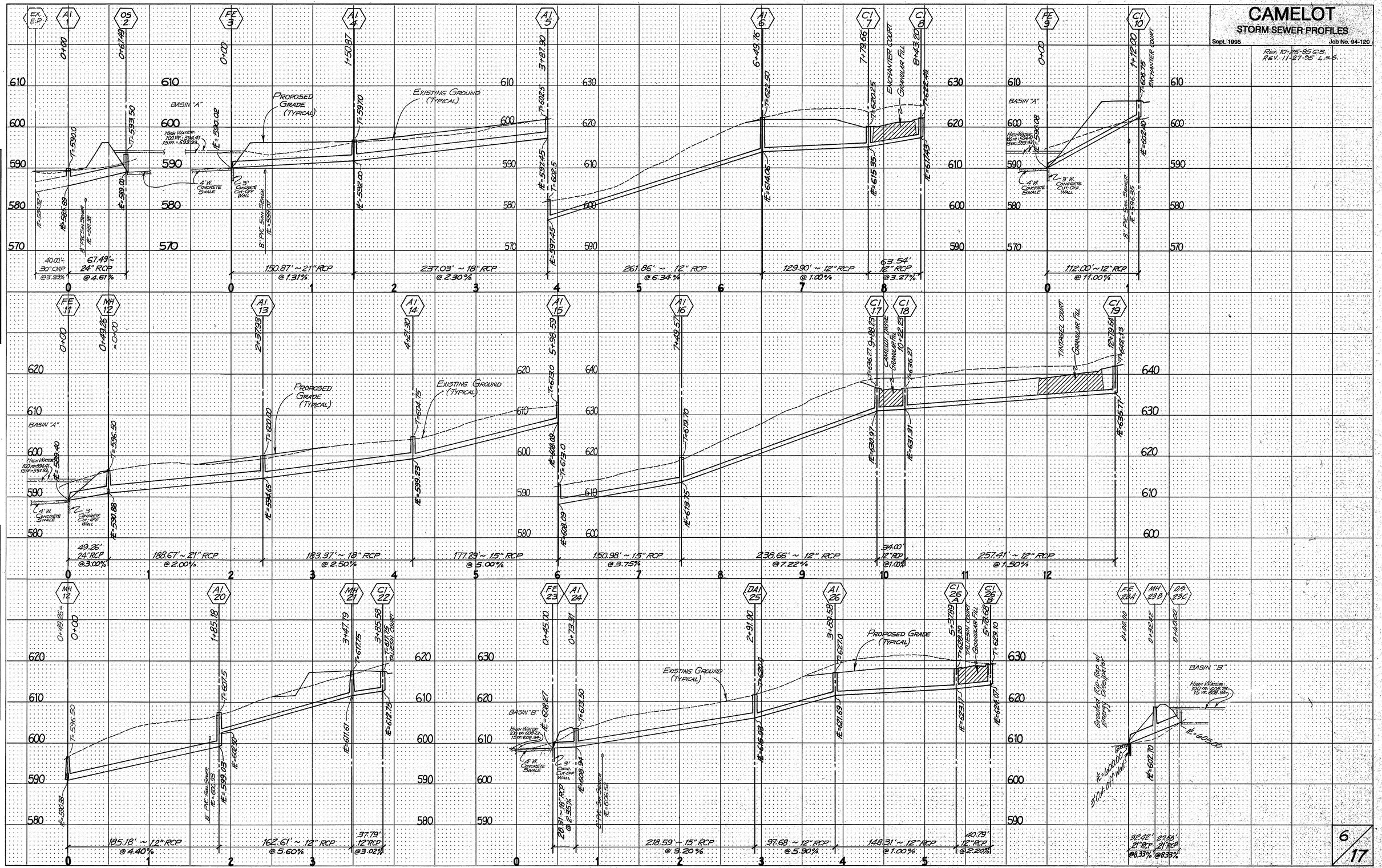


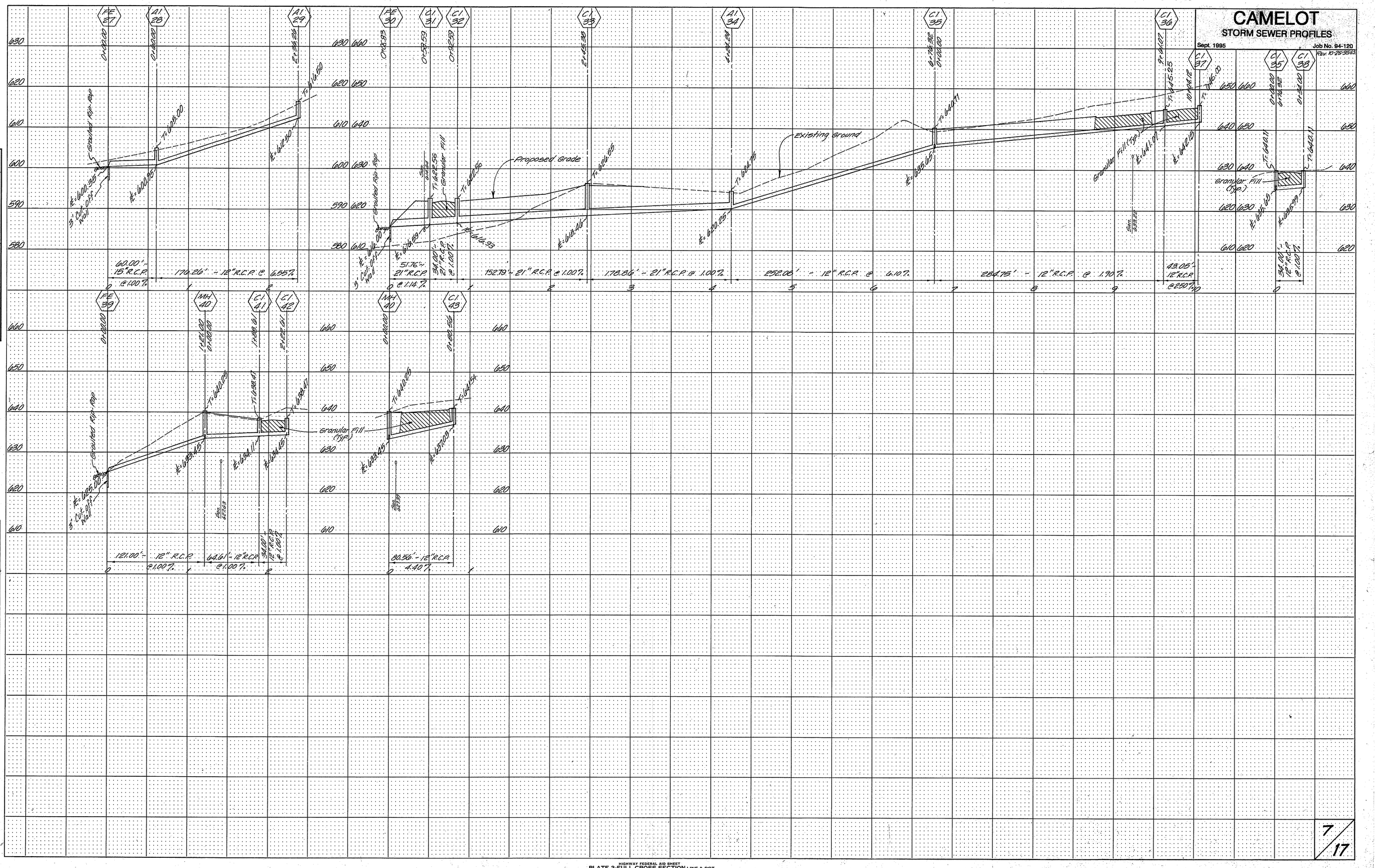
HIGHWAY FEDERAL AID SHEET
PLATE 3-FULL CROSS SECTION-LINE & DOT
NATIONAL PRINTFAST
PRINTED IN U.S.A.

6/17

CAMELOT

STORM SEWER PROFILES

Sept. 1995 — Job No. 94-120 — Rev. 10-25-95



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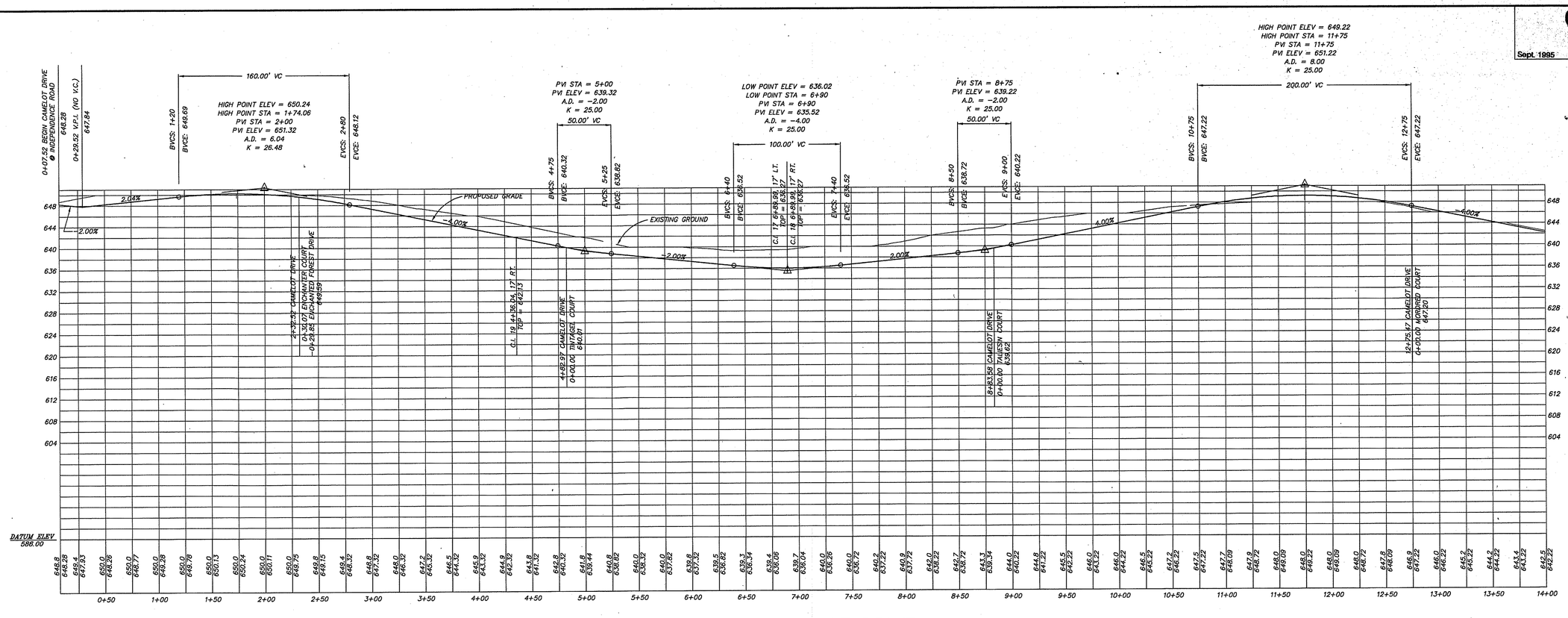
ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

HIGHWAY FEDERAL AID SHEET
PLATE 3-FULL CROSS SECTION-LINE & DOT
NATIONAL PRINTMAST
PRINTED IN U.S.A.

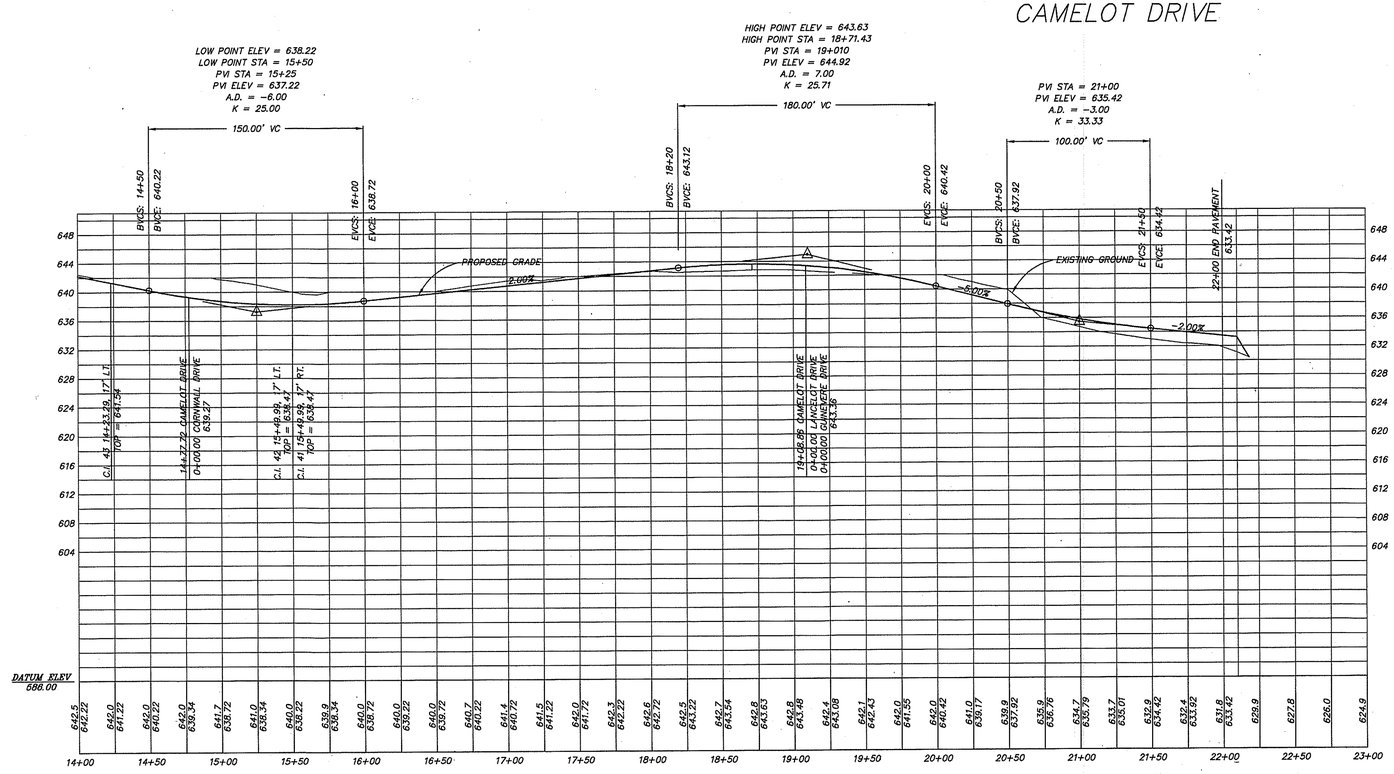
CAMELOT
STREET PROFILES

Sept. 1995 — Job No. 84-120

REV. 10-25-95 GS.



CAMELOT DRIVE



CAMELOT DRIVE

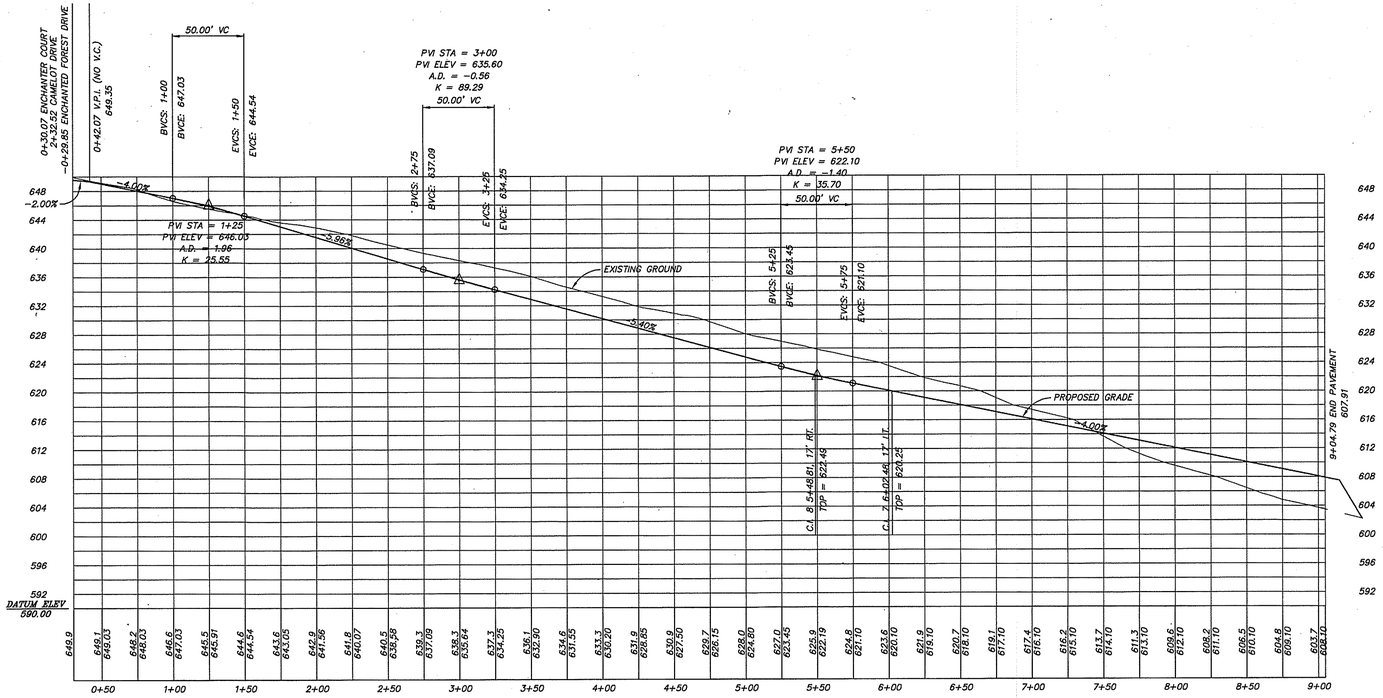
SCALES:
1" = 50' HORIZ.
1" = 10' VERT.

94120DES

CAMELOT
STREET PROFILES

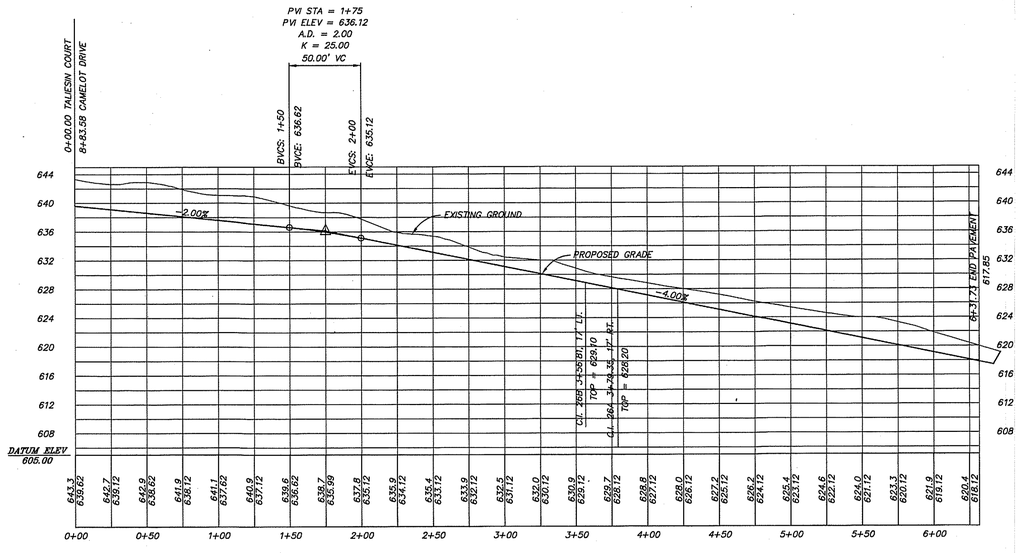
Sept. 1995 — Job No. 94-120

Rev. 10-25-95 G.S.

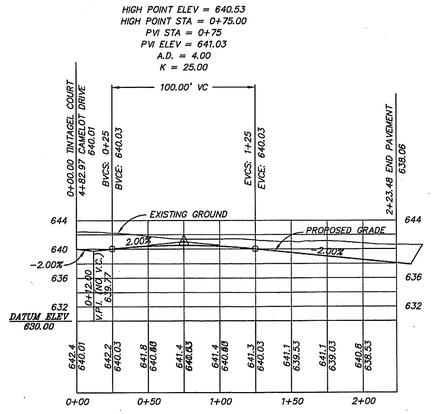


ENCHANTER COURT

SCALES:
1" = 50' HORIZ.
1" = 10' VERT.



TALIESIN COURT



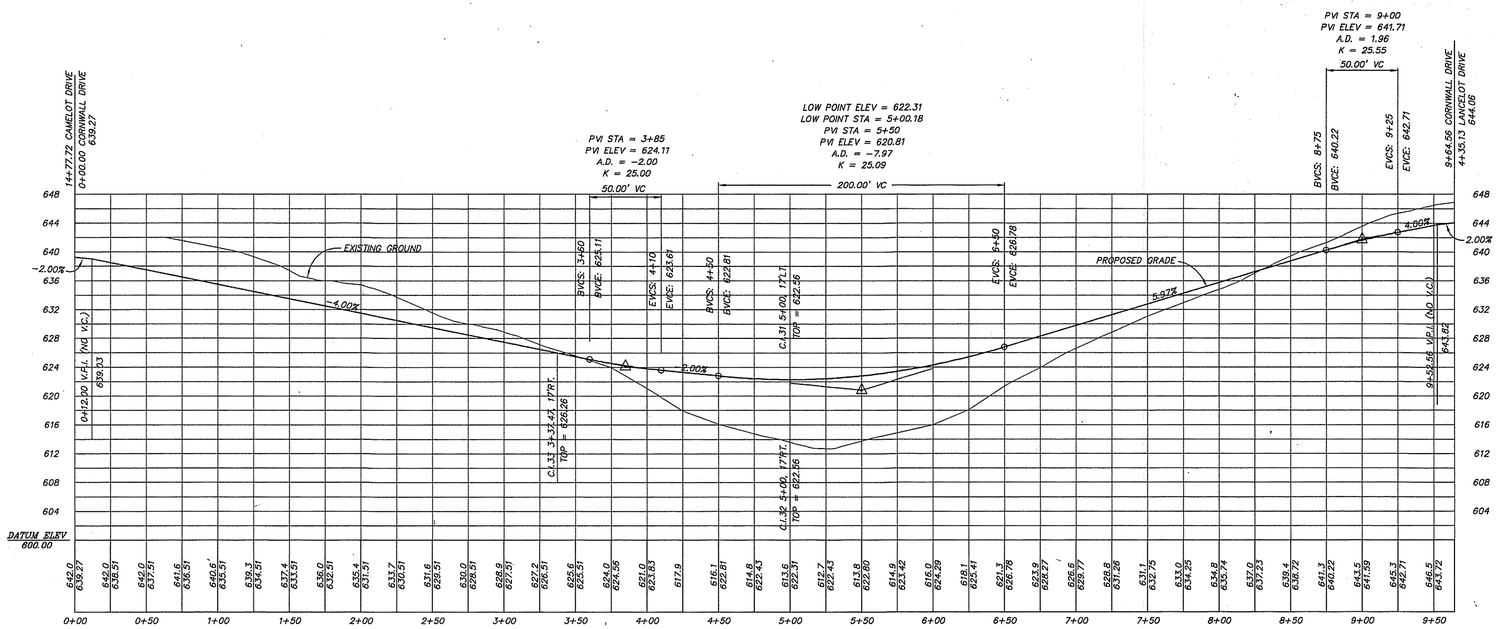
TINTAGEL COURT

94120DES

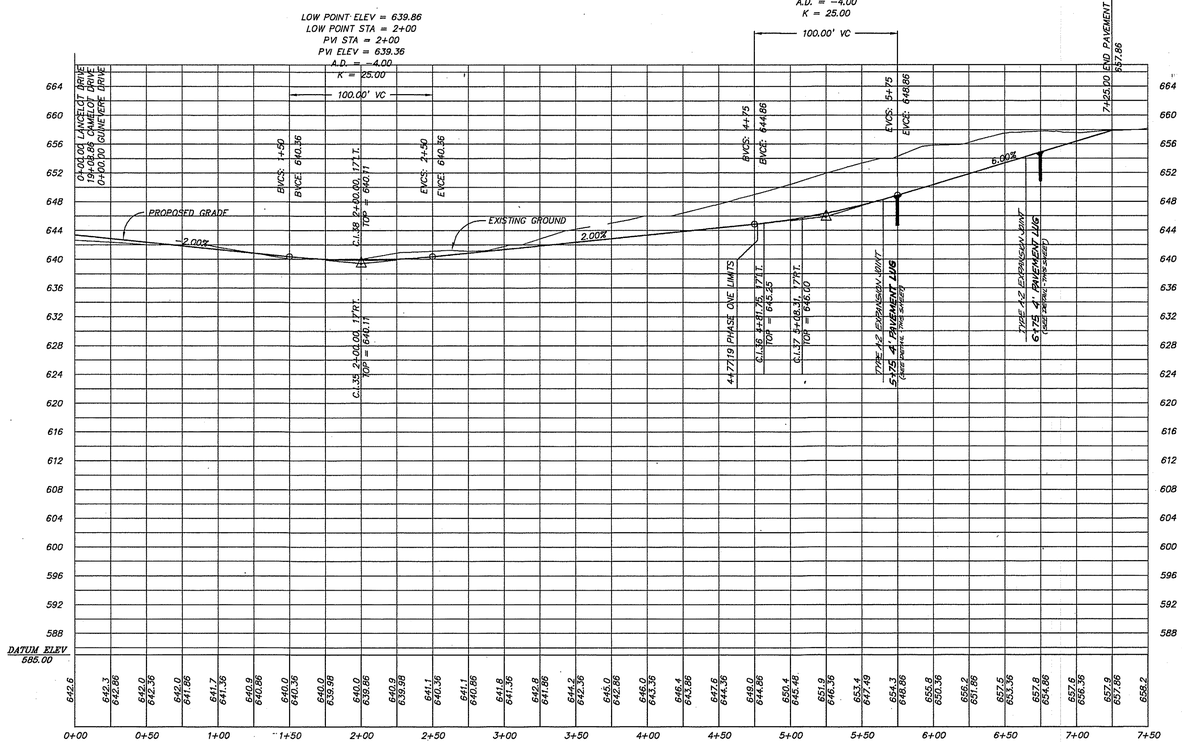
CAMELOT
STREET PROFILES

Sept. 1995 — Job No. 94-120

Rev. 10-25-95 GS.



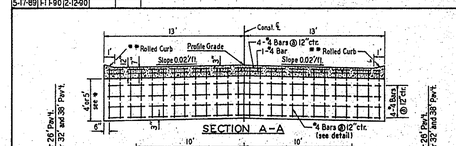
CORNWALL DRIVE



LANCELOT DRIVE

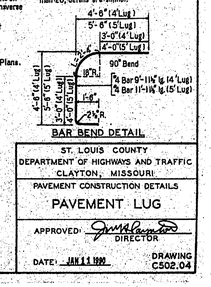
SCALES:
1" = 50' HORIZ.
1" = 10' VERT.

NEW	REVISIONS
5-17-89	1-1-90 [2-12-90]

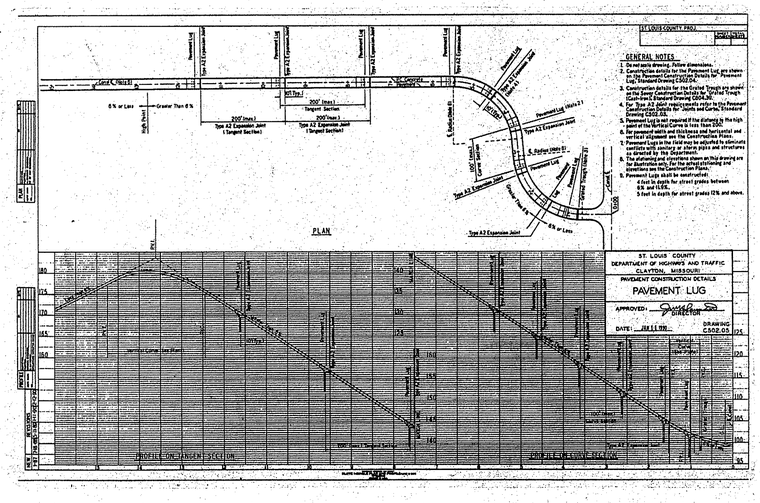


GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. For longitudinal and transverse joints, dowel and tie bar requirements and curb dimensions refer to the Pavement Construction Details for "Joints and Curbs", Standard Drawing C502.XX.
3. Pavement Lugs shall be required on all street grades of 6% or greater.
4. Pavement Lugs shall be located at or near the point at which the street grade first exceeds 6% and then proceed uphill at the following spacing: 200' intervals on tangent sections; 100' intervals on horizontal curve sections; or as otherwise directed by the Department.
5. Pavement Lugs shown are for a 26' wide pavement. When required on pavements narrower or wider than 26', details are similar.



ST. LOUIS COUNTY
DEPARTMENT OF HIGHWAYS AND TRAFFIC
CLAYTON, MISSOURI
PAVEMENT CONSTRUCTION DETAILS
PAVEMENT LUG
APPROVED: DIRECTOR
DATE: JAN 11 1990
DRAWING C502.04



GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. Construction details for the Pavement Lug are shown on the Pavement Construction Details for "Pavement Lug", Standard Drawing C502.04.
3. Construction details for the Grated Trough are shown on the Paving Construction Details for "Grated Trough Curb-Inlet", Standard Drawing C601.01.
4. Type A2 Expansion Joint is similar to the Pavement Contraction Joint for "Joints and Curbs", Standard Drawing C502.08.
5. Pavement Lugs are not required if the distance to the high point of the curve is less than 150'.
6. Pavement widths and thickness and horizontal and vertical alignment are the Construction Plans.
7. Pavement Lugs in the field may be adjusted to eliminate conflicts with existing or proposed utilities and structures as directed by the Department.
8. The stationing and elevations shown on this drawing are for illustration only. For the actual stationing and elevations see the Construction Plans.
9. Pavement Lugs shall be constructed:
   4 feet in depth for street grades between 6% and 11.9%.
   5 feet in depth for street grades 12% and above.

ST. LOUIS COUNTY
DEPARTMENT OF HIGHWAYS AND TRAFFIC
CLAYTON, MISSOURI
PAVEMENT CONSTRUCTION DETAILS
PAVEMENT LUG
APPROVED: DIRECTOR
DATE: JAN 11 1990
DRAWING C502.05

94120DES

CAMELOT
DRAINAGE AREA MAP

Sept. 1995

Job No. 94-120

REV. 10-25-95 G.S.

COUNTY COURT BK 14 / PG. 496-497 INDEPENDENCE (40' W.) ROAD

N03°47'39"E 656.39

N03°47'39"E 1185.41

PHASE ONE

PHASE ONE

CAMELOT DRIVE (50' W.) CONCRETE PAVEMENT 8"

ENCHANTER COURT (50' W.) CONCRETE PAVEMENT 8"

TAILESIN COURT (50' W.) CONCRETE PAVEMENT 8"

TINTAGEL COURT (50' W.)

CENTER OF W. ROADWAY EASEMENT

Trees To Remain

Grading Limits

Existing Trees To Remain

Grading Limits (Typ.)

0.25 Ac.@1.90 Q=0.48 CFS

0.46 Ac.@1.90 Q=0.87 CFS

TQ=0.48 CFS

1.06 Ac.@1.90 Q=2.01 CFS

TQ=2.49 CFS

2.12 Ac.@1.90 Q=4.03 CFS

TQ=3.36 CFS

1.44 Ac.@1.90 Q=2.74 CFS

TQ=7.39 CFS

1.62 Ac.@1.90 Q=3.08 CFS

TQ=10.13 CFS

2.05 Ac.@1.90 Q=3.90 CFS

TQ=13.21 CFS

1.27 Ac.@1.90 Q=2.41 CFS

TQ=5.18 CFS

1.73 Ac.@1.90 Q=3.40 CFS

0.70 Ac.@1.90 Q=1.33 CFS

TQ=8.58 CFS

TQ=9.91 CFS

0.80 Ac.@1.90 Q=1.52 CFS

TQ=2.77 CFS

1.92 Ac.@1.90 Q=3.65 CFS

TQ=3.65 CFS

0.66 Ac.@1.90 Q=1.25 CFS

TQ=1.25 CFS

TQ=35.97 CFS

TQ=19.90 CFS

1.32 Ac.@1.90 Q=2.51 CFS

TQ=17.11 CFS

TQ=2.79 CFS

TQ=2.03 CFS

0.40 Ac.@1.90 Q=0.76 CFS

TQ=2.03 CFS

0.47 Ac.@1.90 Q=0.89 CFS

TQ=0.89 CFS

1.07 Ac.@1.90 Q=2.03 CFS

0.53 Ac.@1.90 Q=1.01 CFS

1.28 Ac.@1.90 Q=2.43 CFS

TQ=1.90 CFS

TQ=4.33 CFS

1.94 Ac.@1.90 Q=3.69 CFS

TQ=8.64 CFS

2.27 Ac.@1.90 Q=4.31 CFS

TQ=12.33 CFS

0.80 Ac.@1.90 Q=1.52 CFS

BASIN "A"

High Water Elev. 599.50 Cover 594.50

GRAPHIC SCALE

50 0 50 100

(IN FEET)

1 inch = 50 ft

THIS SHEET FOR DRAINAGE PURPOSES ONLY
NOT TO BE USED FOR CONSTRUCTION

SEE SHEET 12

941200E3

INDEPENDENCE HEIGHTS
DRAINAGE AREA MAP

Sept. 1995 — Job No. 94-120

Rev. 10-25-95 BS

SEE SHEET 11

TQ=4.33 CFS

2.27 Ac. @ 1.90
Q = 4.31 CFS

TQ=8.64 CFS

1.94 Ac. @ 1.90
Q=3.69 CFS

TQ=29.34 CFS

TQ=12.33 CFS

BASIN "B"

0.80 Ac.@1.90
Q=1.52 CFS

TQ=5.08 CFS

TQ=7.49 CFS

1.07 Ac.@1.90
Q=2.03 CFS

TQ=3.05 CFS

1.26 Ac. @ 1.90 Q=2.39 CFS

0.41 Ac. @ 1.90
Q=0.78 CFS

TQ=11.64 CFS

TQ=13.10 CFS

0.77 Ac. @ 1.90
Q=1.46 CFS

1.61 Ac.@ 1.90
Q=3.05 CFS

TQ=10.86 CFS

2.90 Ac. @1.90
Q=5.51 CFS

0.35 Ac.@ 1.90
Q=0.67 CFS

0.52 Ac.@ 1.90
Q=0.99 CFS

1.19 Ac. @ 1.90
Q=1.50 CFS

TQ=3.16 CFS

TQ=2.49 CFS

TQ=5.35 CFS

0.53 Ac. @ 1.90
Q=1.00 CFS

TQ=3.29 CFS

TQ=1.06 CFS

0.56 Ac.@ 1.90
Q=1.06 CFS

TQ=1.62 CFS

0.86 Ac.@ 1.90
Q=1.63 CFS

0.85 Ac.@ 1.90
Q=1.62 CFS

FAIR FLAG (50'W.) COURT

REBEL (50'W.) DRIVE

INDEPENDENCE (50'W.) DRIVE

LIBERTY BELL (60'W.) DRIVE

DECLARATION (50'W.) DRIVE

25' BUILDING LINE

Grading Limits (Typ.)

Existing Trees To Remain

EXISTING HOUSE TO REMAIN

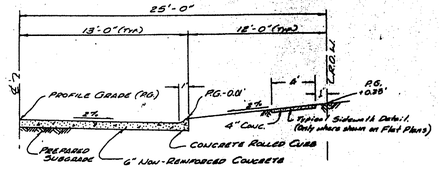
50'W. EASEMENT TO SHELL PIPELINE CORP. BK 235 PG. 15, BK 230 PG. 117, BK 235 PG. 15 & BK 1742 PG. 324

CENTER LINE 16' W. ROADWAY EASEMENT

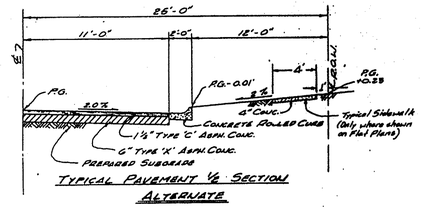
GRAPHIC SCALE
50 0 50 100
(IN FEET)
1 inch = 50 ft.

THIS SHEET FOR DRAINAGE PURPOSES ONLY
NOT TO BE USED FOR CONSTRUCTION

12/17

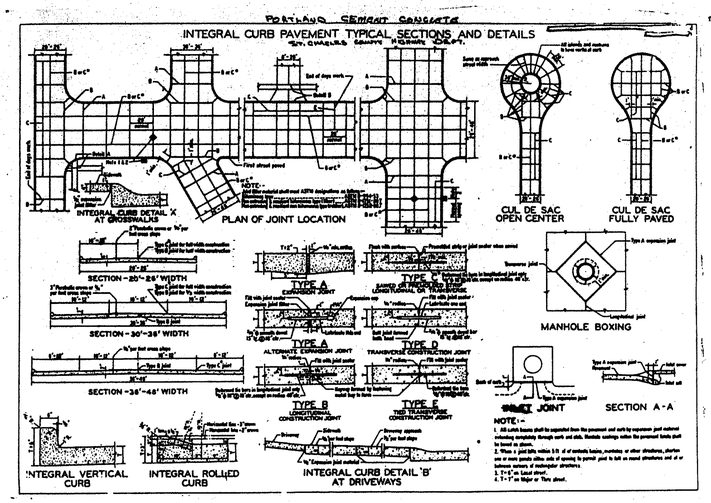


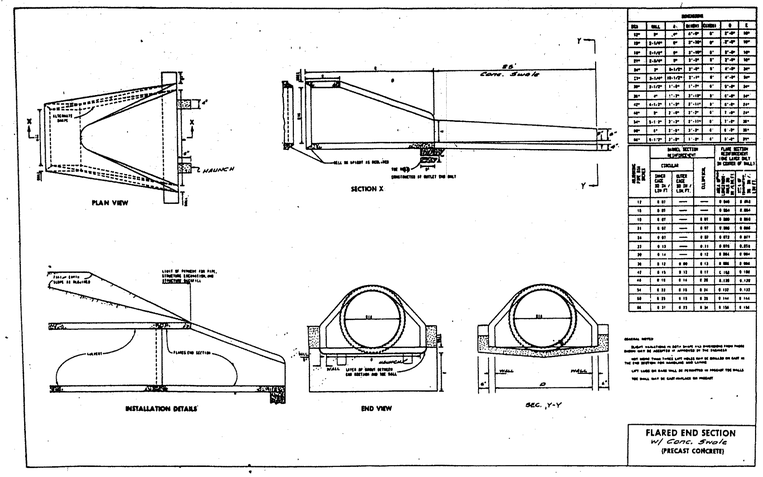
TYPICAL PAVEMENT ½ SECTION

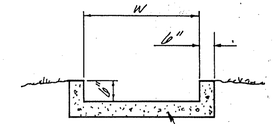


TYPICAL PAVEMENT ½ SECTION
ALTERNATE

PORTLAND CEMENT CONCRETE





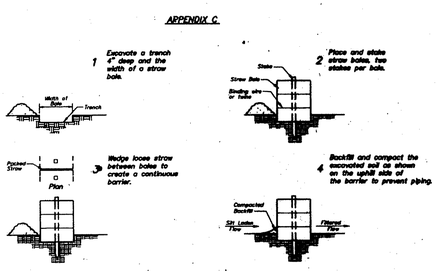


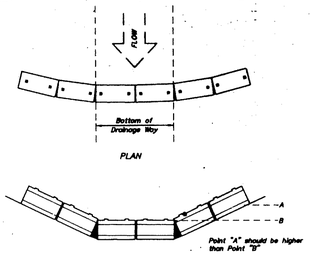
CROSS SECTION
PAVED SWALE
SEE FLAT PLANS FOR WIDTH
N.T.S.

PAVEMENT DETAILS

STRAW BALE BARRIERS
For Urban Development Sites

APPENDIX C





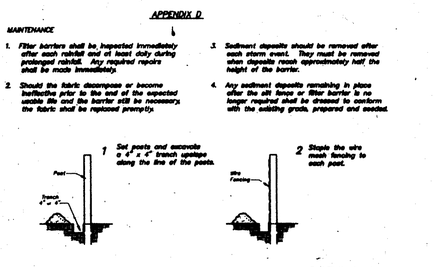
Placement and Construction of a Straw Bale Barrier

SYNTHETIC FILTER BARRIERS
For Urban Development Sites

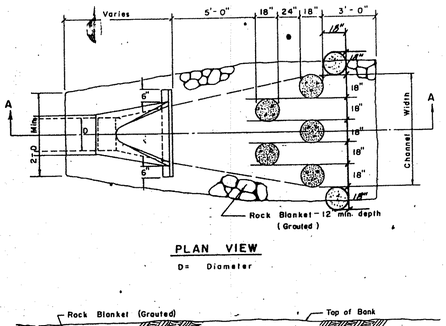
APPENDIX D

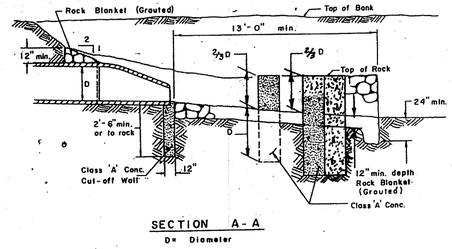
MAINTENANCE

1. Filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
2. Should the fabric decompose or become ineffective prior to the end of the expected usable life and the barrier still be necessary, the fabric shall be replaced promptly.
3. Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately half the height of the barrier.
4. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared and seeded.

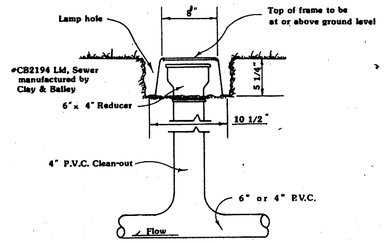


Placement and Construction of a Synthetic Filter Barrier

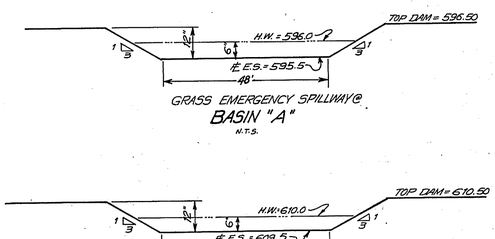


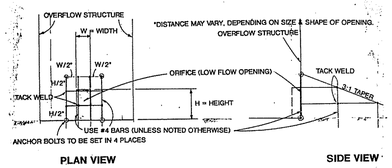


Flared End Section with Energy Dissipator
FOR 27"- 60" CULVERTS

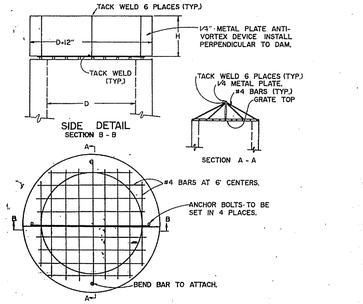


CLEAN-OUT DETAIL
Not to Scale

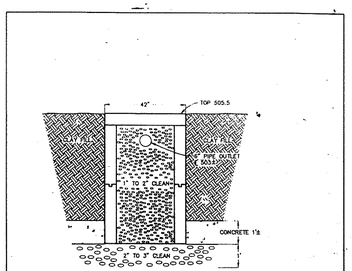




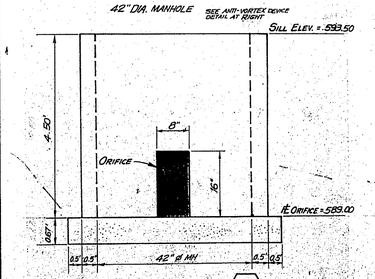
TRASH RACK DETAIL
NOT TO SCALE



OVERFLOW STRUCTURE
BASIN "A" - 42" DIA. ANTI-VORTEX DEVICE
BASIN "B" - 42" DIA.

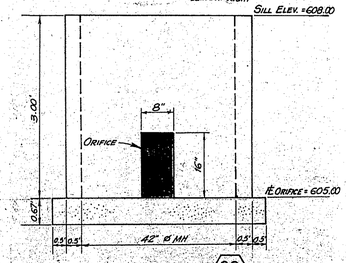


BASIN "A"

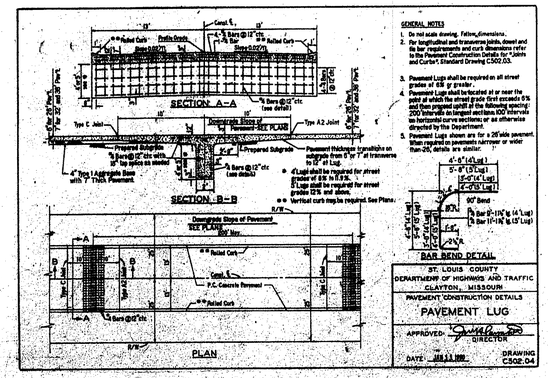


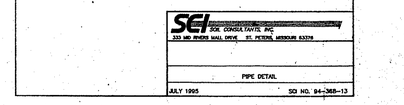
OUTFALL STRUCTURE: OS 2
NOT TO SCALE

BASIN "B"



OUTFALL STRUCTURE: OS 23C
NOT TO SCALE





CAMELOT
CONSTRUCTION DETAILS

Sept. 1995

Job No. 94-190

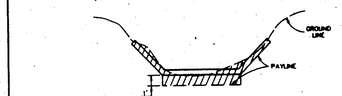
Rev. 1-25-95 BS

ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
INSIDE DIAMETER OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"W" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT. CONCRETE ENCASEMENT	INSIDE DIMENSIONS OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"W" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT. CONCRETE ENCASEMENT
4	30	2.50	3.28				
6	30	2.50	3.59				
8	30	2.50	3.87				
10	30	2.50	4.09				
12	30	2.50	4.25				
15	36	3.00	5.55				
18	36	3.00	5.77	14 x 23	41	3.42	5.94
21	39	3.25	6.61				
24	42	3.50	7.39	19 x 30	49	4.08	7.68
27	45	3.75	8.18	22 x 34	53	4.42	8.81
30	48	4.08	9.30	24 x 38	58	4.83	9.70
33	53	4.42	10.53	27 x 42	62	5.17	10.71
36	56	4.67	11.43	29 x 45	68	5.50	11.72
39	DISCONTINUED			32 x 49	71	5.92	13.14
42	63	5.25	13.38	34 x 53	75	6.25	14.05
@ 48	70	5.83	15.67	38 x 60	83	6.92	16.18
54	77	6.42	18.15	43 x 68	92	7.67	18.81
60	84	7.00	20.73	48 x 76	101	8.42	21.59
66	91	7.58	23.45	53 x 83	109	9.08	24.35
72	98	8.17	26.37	58 x 91	118	9.83	27.45
78	105	8.75	29.39	63 x 98	126	10.50	30.50
84	112	9.33	32.57	68 x 106	135	11.25	33.91
90	119	9.92	35.90	72 x 113	143	11.92	36.99
96	126	10.50	39.37	77 x 121	152	12.67	40.69
102	133	11.08	42.99	82 x 128	160	13.33	44.45
108	140	11.67	46.75	87 x 136	168	14.00	47.79
114	147	12.25	50.66	92 x 143	176	14.67	51.70
120	154	12.83	54.72	97 x 151	185	15.42	56.01
126	161	13.42	58.92				
132	168	14.00	63.27	106 x 166	202	16.83	64.46
144	182	15.17	72.40	116 x 180	218	18.17	73.56

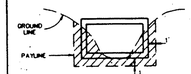
TABLE 1
PAYLINE WIDTHS OF TRENCH AND PAY-QUANTITIES OF CONCRETE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

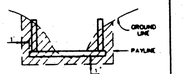
Dr. B.E.B.	1992	SHEET 1
Ch. J.C.K.		



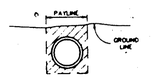
LIMITS FOR TRAPEZOIDAL CHANNEL



LIMITS FOR BOX CULVERT



LIMITS FOR VERTICAL WALL



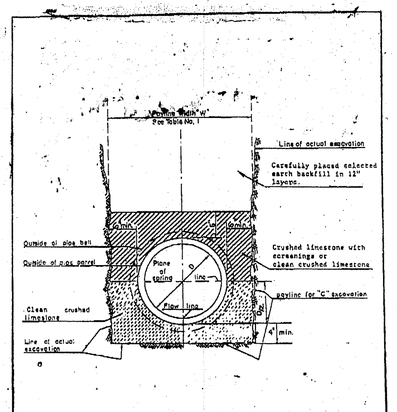
LIMITS FOR PIPE

NOTE
PAYLINE FOR ANY OTHER TYPE CHANNEL EXCAVATION SHALL BE THE EXACT SHAPE OF THE SUBGRADE

PAYLINE LIMITS FOR EXCAVATION

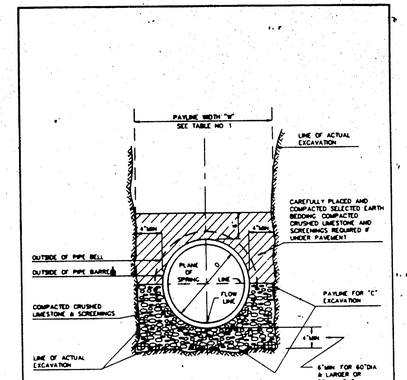
METROPOLITAN ST LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

Dr. W.S.H.	1992	SHEET 2
Ch. J.C.K.		



PIPE BEDDING CLASS "C"
(FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)

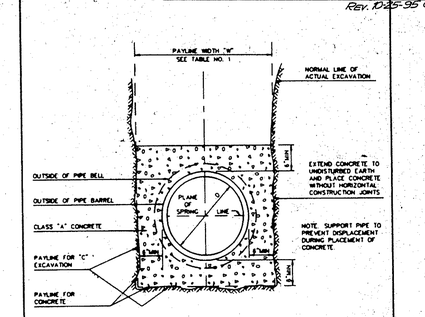
DUCKETT CREEK SEWER DISTRICT
STANDARD CONSTRUCTION DETAIL
DETAIL NO. JAN. 1989



PIPE BEDDING CLASS "C"
(MODIFIED FOR REINFORCED CONCRETE PIPE)

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

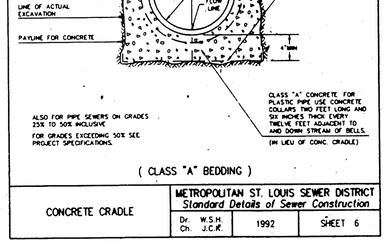
Dr. W.S.H.	1992	SHEET 4
Ch. J.C.K.		



CONCRETE ENCASEMENT

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

Dr. W.S.H.	1992	SHEET 5
Ch. J.C.K.		



(CLASS "A" BEDDING)

CONCRETE CRADLE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

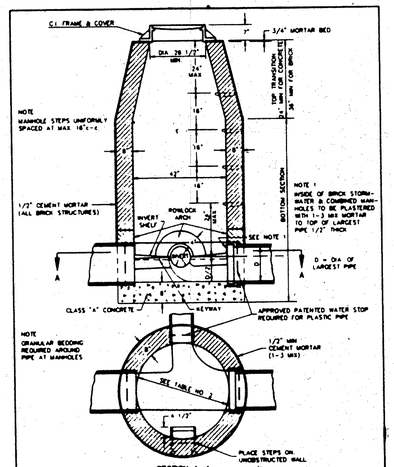
Dr. W.S.H.	1992	SHEET 6
Ch. J.C.K.		

SECTION OF MANHOLE		DIMENSION
TOP TRANSITION	UPPER	26 1/2" DIA.
	LOWER	42" DIA.
BOTTOM SECTION	8" THRU 24" DIA. PIPE	42" DIA.
BOTTOM SECTION	27" THRU 36" DIA. PIPE	42" SQUARE

TABLE NO. 2
STANDARD MANHOLE DIMENSIONS

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

Dr. R.G.W.	1992	SHEET 7
Ch. J.C.K.		

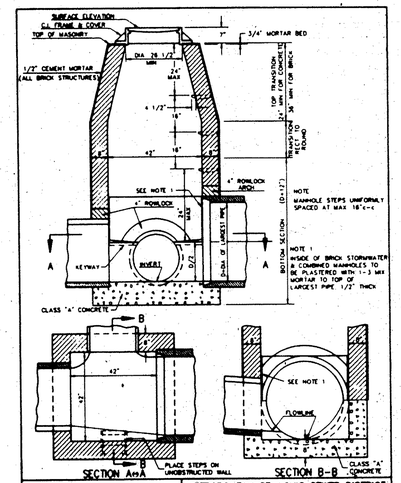


SECTION A-A

LINE MANHOLE
PIPE SEWERS 8"-24" DIA.

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

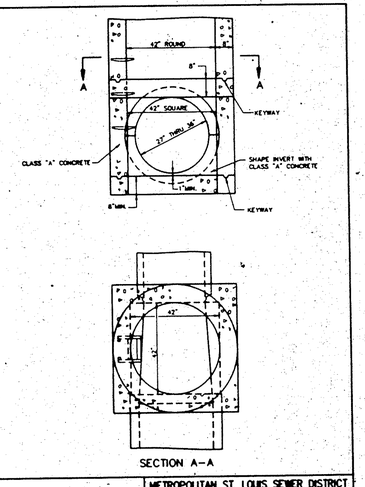
Dr. W.S.H.	1992	SHEET 8
Ch. J.C.K.		



TYPICAL LINE MANHOLE
ON PIPE SEWER 27" THRU 36" IN DIAMETER

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

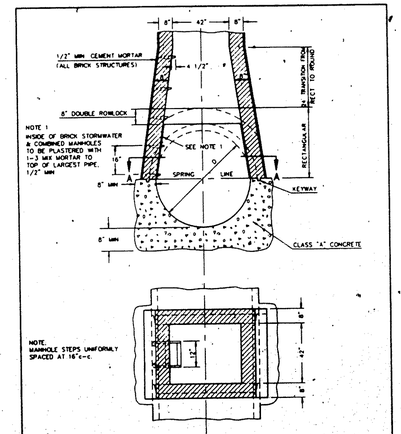
Dr. W.S.H.	1992	SHEET 9
Ch. J.C.K.		



MANHOLE ON PIPE SEWER
27" THRU 36" (ALTERNATE)

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

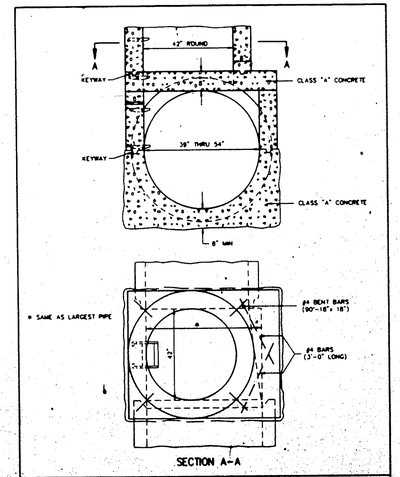
Dr. D.A.B.	1992	SHEET 10
Ch. J.C.K.		



MANHOLE ON CONCRETE PIPE
SEWERS 39" THRU 54" DIAMETER

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

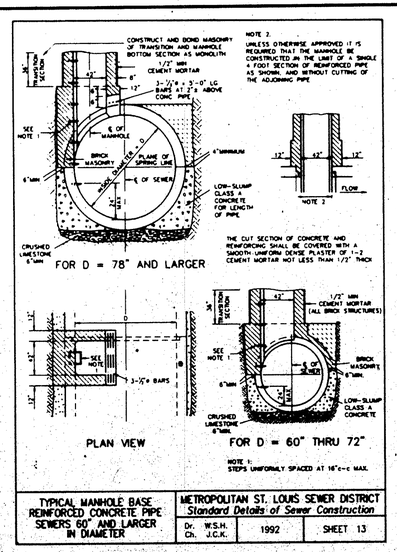
Dr. W.S.H.	1992	SHEET 11
Ch. J.C.K.		



MANHOLE ON CONC. PIPE
39" THRU 54" (ALTERNATE)

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

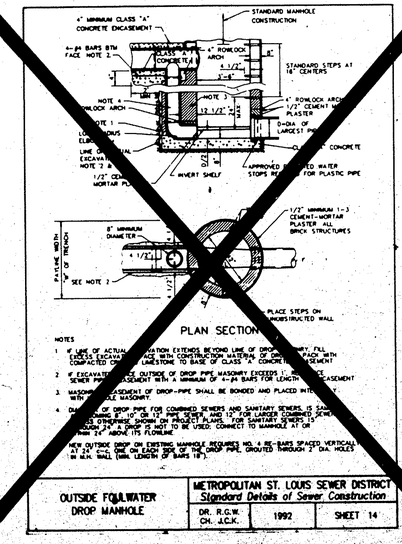
Dr. W.S.H.	1992	SHEET 12
Ch. J.C.K.		



TYPICAL MANHOLE BASE
REINFORCED CONCRETE PIPE
SEWERS 60" AND LARGER
IN DIAMETER

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

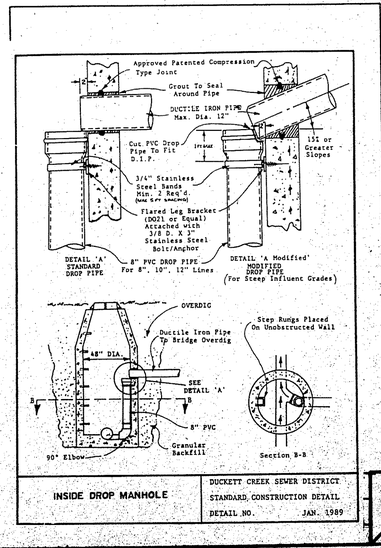
Dr. W.S.H.	1992	SHEET 13
Ch. J.C.K.		



OUTSIDE FOUL WATER
DROP MANHOLE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

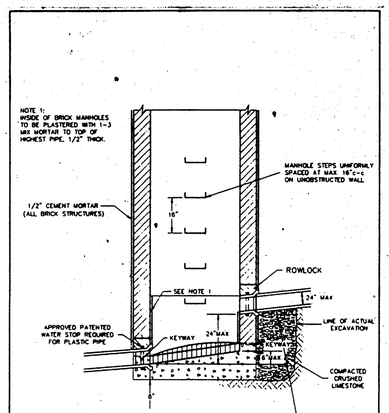
DR. R.G.W.	1992	SHEET 14
CH. J.C.K.		



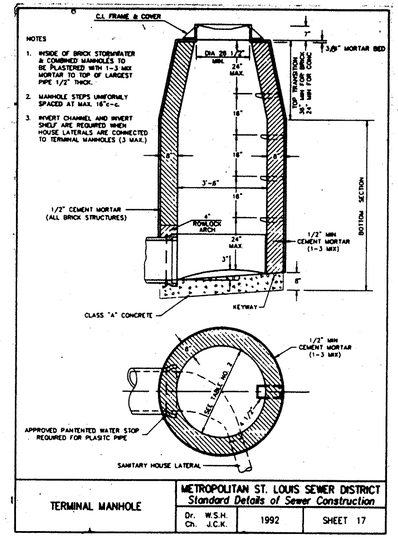
INSIDE DROP MANHOLE

DUCKETT CREEK SEWER DISTRICT
STANDARD CONSTRUCTION DETAIL
DETAIL NO. JAN. 1989

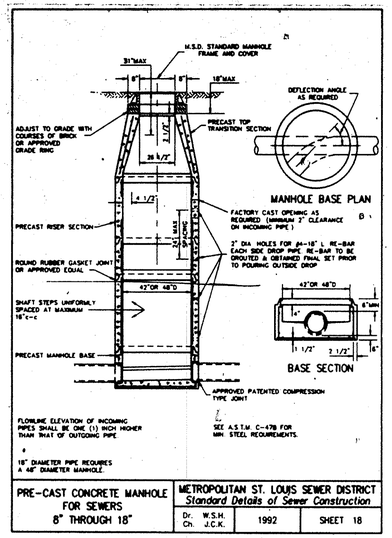
14/17



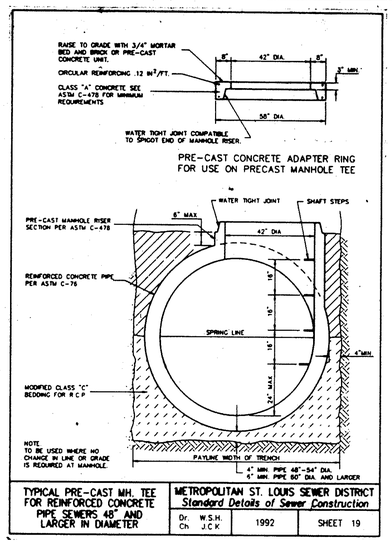
INSIDE FOULWATER DROP MANHOLE (FOR FREE-FALL)	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. W.S.H. Ch. J.C.K.	1992	SHEET 16



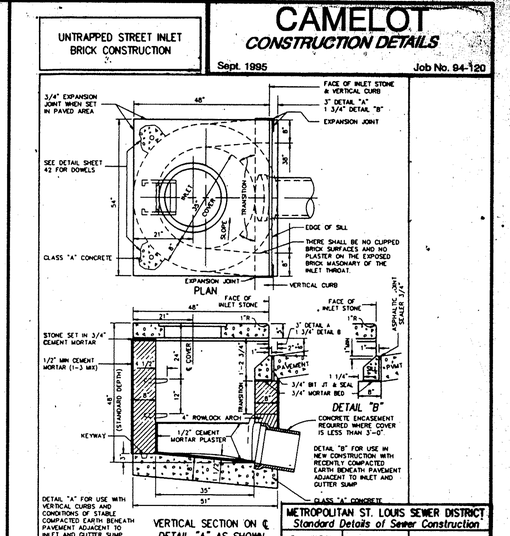
TERMINAL MANHOLE	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. W.S.H. Ch. J.C.K.	1992	SHEET 17



PRE-CAST CONCRETE MANHOLE FOR SEWERS 8" THROUGH 18"	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. W.S.H. Ch. J.C.K.	1992	SHEET 18



TYPICAL PRE-CAST MH. TEE FOR REINFORCED CONCRETE PIPE SEWERS 48" AND LARGER IN DIAMETER	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. W.S.H. Ch. J.C.K.	1992	SHEET 19



	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. W.S.H. Ch. J.C.K.	1992	SHEET 20

TRAPPED STREET INLET BRICK CONSTRUCTION	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. W.S.H. Ch. J.C.K.	1992	SHEET 21

MULTIPLE STREET INLET BRICK CONSTRUCTION	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. D.A.B. Ch. J.C.K.	1992	SHEET 22

DOUBLE UNTRAPPED STREET INLET BRICK CONSTRUCTION	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. D.A.B. Ch. J.C.K.	1992	SHEET 23

AREA INLET OPEN 4 SIDES BRICK CONSTRUCTION	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. R.G.W. Ch. J.C.K.	1992	SHEET 24

AREA INLET MANHOLE (12" THRU 24")	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. R.G.W. Ch. J.C.K.	1992	SHEET 25

DOUBLE AREA INLET OPEN 4 SIDES BRICK CONSTRUCTION	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. R.G.W. Ch. J.C.K.	1992	SHEET 26

2 GRATE INLET BRICK CONSTRUCTION	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. R.G.W. Ch. J.C.K.	1992	SHEET 27

2 GRATE INLET WITH SIDE INTAKE BRICK CONSTRUCTION	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. R.G.W. Ch. J.C.K.	1992	SHEET 28

3 & 4 GRATE INLET BRICK CONSTRUCTION	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. R.G.W. Ch. J.C.K.	1992	SHEET 29

6 & 8 GRATE INLET BRICK CONSTRUCTION	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. W.S.H. Ch. J.C.K.	1992	SHEET 30

PRECAST CONCRETE STORMWATER STRUCTURES

MINIMUM DISTANCE FLOWLINE TO TOP OF STONE OR GRATE

PIPE ID NOMINAL INCHES	AREA INLET CIRCULAR BASE DIA. 42"	48"	60"	2-GRATE INLET CIRCULAR BASE DIA. SQUARE 42"	48"	60"	(MAX.)	SINGLE STREET INLET CIRCULAR BASE DIA. RECTANGLE 42"	48"	60"	(MAX.)
12"	45"			38"			31"	48"			41"
15"	48"			41"			34"	51"			44"
18"	52"			44"			37"	55"			48"
21"	55"			47"			40"	58"			51"
24"		58"			51"		44"		61"		54"
27"			78"			71"	NA			81"	NA
30"			82"			74"	NA			85"	NA
33"			85"			77"	NA			88"	NA

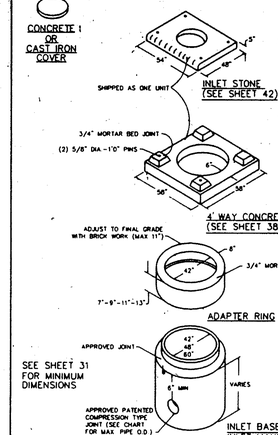
(SEE SHEET 32 FOR DETAIL) (SEE SHEET 33 FOR DETAIL) (SEE SHEET 34 FOR DETAIL)

NOTE 1. 48" DIA. BASE REQUIRES 7" HIGH TRANSITION SECTION TO 42" DIA., SIMILAR TO "ADAPTER RING" SHEET 33.

2. 60" DIA. BASE REQUIRES 24" HIGH CONCENTRIC REDUCER TRANSITION TO 42" DIA., SIMILAR TO "ADAPTER RING" SHEET 32.

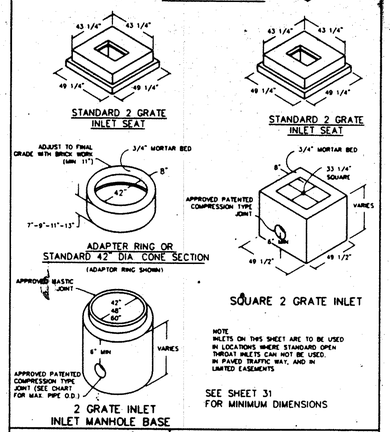
PRECAST CONCRETE STORMWATER STRUCTURES	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. J.L.G. Ch. J.C.K.	SEPT. 1990	SHEET 31

CONCRETE OR CAST IRON COVER



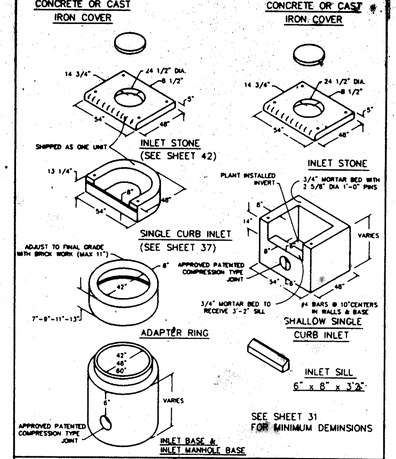
AREA INLET PRECAST CONCRETE	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. J.L.G. Ch. J.C.K.	APRIL 1992	SHEET 32

(2)30" x 15" GRATES



- 2 GRATE INLETS PRECAST CONCRETE	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. J.L.G. Ch. J.C.K.	APRIL 1992	SHEET 33

CONCRETE OR CAST IRON COVER



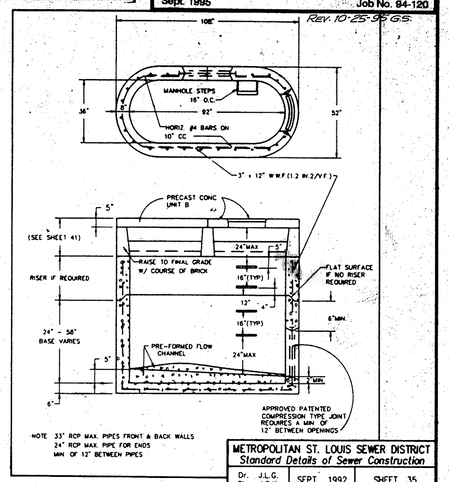
SINGLE STREET INLETS PRECAST CONCRETE	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. J.L.G. Ch. J.C.K.	APRIL 1991	SHEET 34

DOUBLE UNTRAPPED STREET INLET PRECAST CONCRETE

CAMELOT *CONSTRUCTION DETAILS*

Sept. 1995 Job No. 94-120

Rev. 10-25-95 G.S.



NOTE 33" RCP MAX. PIPES FRONT & BACK WALLS
24" RCP MAX. PIPE FOR ENDS
MIN OF 12" BETWEEN PIPES

	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. J.L.G. Ch. J.C.K.	SEPT. 1992	SHEET 35

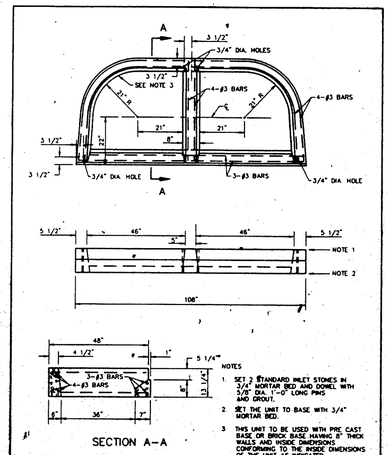
TRAPPED STREET INLET BASE PRECAST CONCRETE	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. W.S.H. Ch. J.C.K.	1992	SHEET 36

PRE-CAST CONCRETE UNIT FOR SINGLE STREET INLET	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. W.S.H. Ch. J.C.K.	1992	SHEET 37

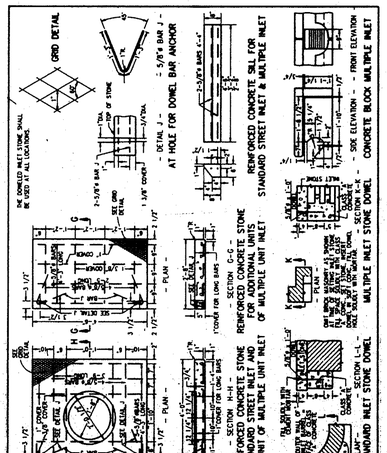
PRE-CAST CONCRETE UNIT FOR 4 WAY AREA INLET	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. D.A.B. Ch. J.C.K.	1992	SHEET 38

CONCRETE DOUBLE STREET INLET W/PRE CAST CONCRETE UNIT A	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. R.G.W. Ch. J.C.K.	1992	SHEET 39

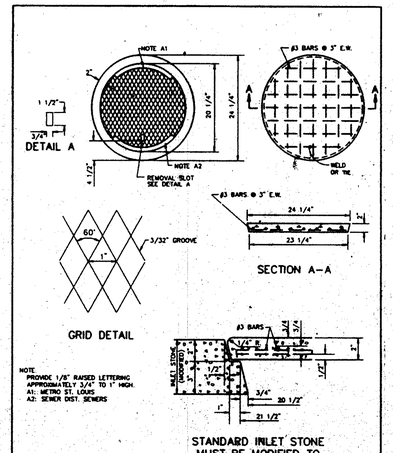
PRE-CAST CONCRETE UNIT A FOR STREET DOUBLE INLET	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. R.G.W. Ch. J.C.K.	1992	SHEET 40



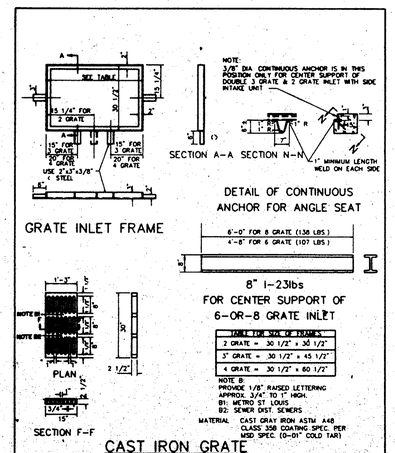
PRE-CAST CONCRETE UNIT B FOR STREET DOUBLE INLET	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. R.G.W. Ch. J.C.K.	1992	SHEET 41



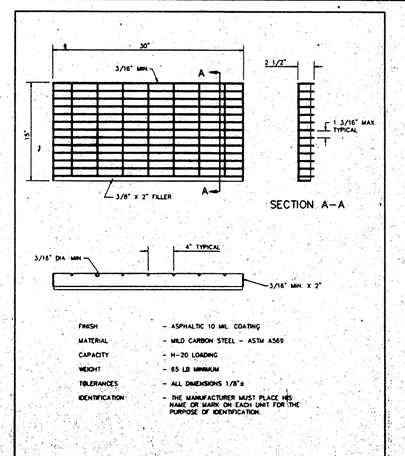
STANDARD - INLET STONES, BLOCKS & DESIGN DETAILS	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. W.S.H. Ch. J.C.K.	1992	SHEET 42



PRE - CAST CONCRETE INLET COVER	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. R.G.W. Ch. J.C.K.	1992	SHEET 43



DETAILS OF INLET FRAME AND GRATES	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	DR. R.G.W. Ch. J.C.K.	1992	SHEET 44



DETAIL OF STEEL GRATE	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. R.G.W. Ch. J.C.K.	1992	SHEET 45

CALL	USE	o	STRAIGHT BARS
G-1	2, 3, OR 4 GRATE	3'-4"	
G-2	6 & 8 GRATE	5'-10"	
H-2	2 GRATE		3'-6"
H-3	3 & 6 GRATE		4'-9"
H-4	4 & 8 GRATE		6'-0"

SECTION A-A

STEEL REQUIREMENTS FOR GRATE INLET SEAT

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H. Ch. J.C.K. | 1992 | SHEET- 46

PLAN

ELEVATION

END VIEW

SECTION B-B

CAST IRON SIDE INTAKE UNIT FOR GRATED INLETS 249 LBS.

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. R.G.W. Ch. J.C.K. | 1992 | SHEET 47

CENTER LUG AND RIB

SECTION A-A
(230 lbs)

CAST IRON MANHOLE FRAME

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. D.A.B. Ch. J.C.K. | 1992 | SHEET 48

MACHINE CONTACTING SURFACES FOR SEAT OF STANDARD MANHOLE FRAME AND BEARING SURFACE COVERS

85LBS.

SECTION A-A
STANDARD CAST IRON INLET COVER

NOTE B
PROVIDE 1/8" RAISED LETTERING APPROXIMATELY 3/4" TO 1" HIGH.
B1 METRO ST LOUIS
B2 SEWER DIST SEWERS

TYPE "B" 152 LBS.

TYPE "A" 145+ LBS.

SECTION C-C

SECTION D-D

PLAN OF SLOTTED-TYPE COVER

PLAN OF CLOSED-TYPE COVER

STANDARD CAST IRON MANHOLE COVERS

CAST IRON COVERS MANHOLES AND INLETS

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. R.G.W. Ch. J.C.K. | 1992 | SHEET 49

CAST IRON MANHOLE COVERS (LOCK TYPE)

NOTE-IF WATERTITE COVER REQUIRED USE APPROVED BUTYL RUBBER PREFORMED MASTIC SEALANT BETWEEN COVER AND FRAME.

TYPE 'T'

TYPE 'N'

METROPOLITAN Standard Deta
Dr. W.S.H. Ch. J.C.K.

Sept. 1995 CONSTRUCTION DETAILS
Rev. 10-25-95 G.S.
Job No. 84.120

GRAY IRON CASTING A.S.T.M. A-48, CLASS 30B WITH COATING M.S.D. SPECIFICATION PART 2 SECTION 6

7/8" - 9 x 3 1/2" BUNC 2A 18-8 STAINLESS STEEL HEX HEAD CAP SCREW

7/8" STAINLESS FLAT WASHER

2" STAINLESS STEEL COTTER PIN

3/16" DIA COUNTER SUNK

LOCKING DEVICE FOR TYPE "T" LOCK TYPE MANHOLE COVER

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. R.G.W. Ch. J.C.K. | 1992 | SHEET 51

LOCK LUG
NOT TO SCALE

WASHER 1 1/2" OD MAX

7/8"-9 x 3 1/2" NC SNS STL 18 - 8 HEX HD BOLT WITH WASHER (STAINLESS STEEL) M=9500 - THREADED TO 1/2" OF THE HEAD

Ø 1 1/2" DIA MIN

DRILL & TAP 7/8" - 9 N C

MAX 1 1/2" OD MAX STAINLESS STEEL WASHER

9/64" DIA HOLE

DRILL FOR STAINLESS STEEL HAIR PINS FOR 7/8" DIA. SHAFT

LOCKING DEVICE FOR TYPE "N" LOCK TYPE MANHOLE COVER

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. J.L.C. Ch. J.C.K. | 1992 | SHEET 52

SECTION A-A

COPOLYMER POLYPROPYLENE PLASTIC

PS1-B MANHOLE STEP INTO JOINT

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H. Ch. J.C.K. | 1992 | SHEET 53

SECTION A-A

COPOLYMER POLYPROPYLENE PLASTIC

MANHOLE STEP FOR PRECAST MANHOLE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. D.A.B. Ch. J.C.K. | 1992 | SHEET 54

SECTION B-B

SECTION A-A

PLAN OF GUTTER SUMP

FRONT VIEW OF GUTTER SUMP

GUTTER SUMP FOR LIP CURB

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. R.G.W. Ch. J.C.K. | 1992 | SHEET 56

PLAN VIEW

SECTION A-A

END VIEW

NOTES:
1. TO BE USED AT INTAKE AND DISCHARGE END OF PIPE. GRADE OF ROCK BLANKET TO BE ADJUSTED ACCORDINGLY.
2. GROUTED ROCK BLANKET REQUIRED.

FLARED END SECTION

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H. Ch. J.C.K. | 1992 | SHEET 57

TYPICAL PLAN & SECTION AT SEWER LINE DISCHARGING INTO CHANNEL

NOTES
1. MECHANICALLY COMPACT BACKFILL IN TRENCHES OR CLOSURES OF ABANDONED CHANNELS TO DENSITY NOT LESS THAN THAT IN ADJACENT BANK. PROTECT WITH A BLANKET OF CRUSHED LIMESTONE OR PAVING WHERE NECESSARY.
2. 45 DEGREES OR UNPAVED CHANNELS AND FOR LARGE FLOWS ENTERING SMALL CHANNELS 90 DEGREES AT PAVED CHANNELS AND FOR SMALL FLOWS ENTERING LARGE CHANNELS
3. CHANNEL PAVING OR BANK PAVING OR BOTH MAY BE REQUIRED TO PREVENT EROSION AT CURVES IN ALIGNMENT OR AT LOCATIONS OF POSSIBLE EROSION DUE TO DISCHARGE OF LARGE FLOWS.

DETAIL OF CONCRETE COLLAR

STORMWATER CHANNELS

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. R.G.W. Ch. J.C.K. | 1992 | SHEET 58

HOUSE CONNECTION

NOTES
1. 6" V.C.P. WITH COMPRESSION JOINT (SHOWN)
2. 6" V.C.P. WITHOUT COMPRESSION JOINT USE SEWER TITE AND OAKUM
3. IF 4" HOUSE CONNECTION IS APPROVED, A 4" TO 6" INCREASER IS REQUIRED
4. IF 6" P.V.C. IS USED A FERNCO ADAPTOR OR SEWER TITE AND OAKUM MAY BE USED TO MAKE THE JOINT
5. A CLEAN, GREY BEDDING MATERIAL IS REQUIRED AROUND THE COMPLETED CONNECTION BEFORE BACKFILLING. THE BEDDING MATERIAL SHALL BE ONE OF THE FOLLOWING.
   A. M.S.D. NO. 1 BEDDING
   B. 1 TO 3 CEMENT AND SAND
   C. PRE-MIX CONCRETE

HOUSE CONNECTION TO EXISTING TEE OR WYE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. D.A.B. Ch. J.C.K. | 1992 | SHEET- 59

GUTTER SUMPS FOR VERTICAL CURB

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H. Ch. J.C.K. | 1992 | SHEET- 55

FERNCO DONUT NO. 614

NOTES
1. 6" V.C.P. OR 6" P.V.C. HOUSE CONNECTION INTO PUBLIC V.C.P. OR PUBLIC P.V.C. MAIN. 8" TO 24" DIAMETER AND WYE OR TEE IF AVAILABLE, A MACHINE TAP IS REQUIR
2. THE DISTRICT WILL CUT THE HOLE IN THE MAIN, PROVIDE AND EPOXY THE SADDLE TO THE MAIN. ALL OTHER MATERIAL AND LABOR ARE THE RESPONSIBILITY OF THE CONTRACTOR
3. A CLEAN GREY BEDDING MATERIAL IS REQUIRED AROUND THE COMPLETED CONNECTION BEFORE BACK FILLING. THE BEDDING MATERIAL SHALL BE ONE OF THE FOLLOWING.
   A. M.S.D. NO. 1 BEDDING
   B. 1 TO 3 CEMENT TO SAND
   C. PRE-MIX CONCRETE
4. IF 4" HOUSE CONNECTION IS APPROVED, A 4" TO 6" INCREASER IS REQUIRED A MACHINE TAP.
5. ALL EXCAVATION MUST BE ADEQUATELY BRACED BEFORE DISTRICT WILL MAKE AN INSPECTION.
6. ALL MATERIAL REQUIRED TO MAKE AN APPROVED CONNECTION MUST BE ON THE CONNECTION SITE AT THE TIME OF ARRIVAL OF THE TAP TRUCK. IF THE MATERIAL IS NOT AVAILABLE, THE TAP MUST BE RESCHEDULED.

MACHINE TAP

METROPOLITAN ST. LOUIS S
Standard Details of Sewer
Dr. W.S.H. Ch. J.C.K. | 1992