

# THE HOMESTEAD AT RIVER'S BEND

## THE HOMESTEAD

### SEQUENCE OF CONSTRUCTION

THE FOLLOWING SEQUENCE OF CONSTRUCTION WILL BE SIMULTANEOUSLY FOLLOWED FOR ALL AREAS ELIMINATING ONLY THOSE STEPS THAT DO NOT PERTAIN TO THAT PARTICULAR AREA:

- STEP 1: INSTALL EROSION AND SEDIMENT CONTROL MEASURES.
- STEP 2: PERFORM CLEARING OPERATION, STRIP AND STOCKPILE TOPSOIL.
- STEP 3: ROUGH GRADE SITE, STABILIZE EROSION PRONE AREAS, ALL SLOPES 3 TO 1 AND GREATER SHALL BE IMMEDIATELY STABILIZED WITH SEED AND MULCH OR AN EQUAL.
- STEP 4: INSTALL UTILITIES, CONSTRUCT TEMPORARY SILT TRAPS WHERE SHOWN.
- STEP 5: INSTALL BASE COURSE IN ROADWAYS FOLLOWING THE INSTALLATION OF IMPROVEMENTS.
- STEP 6: FINE GRADE AND SEED; REMOVE EROSION CONTROL METHODS UPON COMPLETION OF ALL IMPROVEMENTS.

### GENERAL NOTES

- WATER MAIN PLANS AND CONSTRUCTION SHALL COMPLY WITH THE RULES, SPECIFICATIONS AND INSPECTION OF THE OFFICE OF THE WARREN COUNTY SANITARY ENGINEER. ALL OTHER PLANS AND CONSTRUCTION SHALL COMPLY WITH THE RULES, SPECIFICATIONS AND INSPECTION OF THE VILLAGE OF SOUTH LEBANON.
- ALL MATERIALS AND CONSTRUCTION PROCEDURES SHALL BE IN ACCORDANCE WITH "CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION," DATE: JANUARY 1, 2002.
- UNLESS OTHERWISE NOTED ALL CONSTRUCTION DETAILS SHALL CONFORM WITH THE "STANDARD CONSTRUCTION DRAWINGS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION".
- ALL SANITARY SEWER MANHOLES, CASTINGS, PIPE, ETC., SHALL CONFORM WITH CURRENT SPECIFICATIONS OF THE VILLAGE OF SOUTH LEBANON AND THE OHIO ENVIRONMENTAL PROTECTION AGENCY.
- ALL WATER MAINS, FIRE HYDRANTS AND RELATED ITEMS SHALL CONFORM WITH CURRENT SPECIFICATIONS OF THE WARREN COUNTY SANITARY ENGINEER AND THE OHIO ENVIRONMENTAL PROTECTION AGENCY. ALL WATER MAINS SHALL HAVE MINIMUM COVER OF 54 INCHES AND SHALL BE DUCTILE IRON CLASS 52. BACKFILL SHALL BE CLASS A WHEN MAIN IS 5 FEET OR GREATER FROM CURB. LESS THAN 5 FEET FROM CURB, UNDER CURB OR PAVEMENT BACKFILL SHALL BE CLASS B GRANULAR.
- UNLESS OTHERWISE SPECIFIED ALL STORM SEWER 18 INCHES IN DIAMETER OR LARGER SHALL BE TYPE C CONDUIT 706.02 CLASS IV WITH CLASS B BEDDING AS PER 603.04. STORM SEWER CONDUIT OF 15 INCHES IN DIAMETER OR SMALLER MAY BE EITHER 706.02 CLASS IV OR 706.01 CLASS III WITH CLASS B BEDDING AS PER 603.04. AS AN ALTERNATE, STORM SEWER CONFORMING TO O.D.O.T. 707.33 MAY BE USED, HOWEVER, ALL STORM SEWERS SHALL HAVE A MAXIMUM MANNING'S "N" VALUE OF 0.012. INSTALLATION SHALL AGREE WITH MANUFACTURERS RECOMMENDATION.
- ALL TRENCHES UNDER THE PAVEMENT, CURB, AND GUTTERS SHALL BE BACKFILLED WITH EITHER COMPACTED NATIVE MATERIAL, COMPACTED GRANULAR MATERIAL, OR CONTROLLED DENSITY FILL. IF SETTLEMENT OCCURS THE TRENCH SHALL BE EXCAVATED TO THE CONDUIT'S BEDDING AND CONTROLLED DENSITY FILL SHALL BE USED TO BACKFILL THE TRENCH FROM BACK OF CURB TO BACK OF CURB. IF THE PAVEMENT HAS NO CURB, THE TRENCH SHALL BE EXTENDED THREE (3) FEET BEYOND THE EDGE OF PAVEMENT.
- NO STRUCTURE OF ANY KIND WHICH CAN INTERFERE WITH ACCESS TO SANITARY SEWER, WATER MAIN, OR STORM SEWER SHALL BE PLACED IN OR UPON A PERMANENT EASEMENT, EXCEPT ITEMS SUCH AS RECREATIONAL SURFACES, PAVED AREAS FOR PARKING LOTS, DRIVEWAYS OR OTHER SURFACES USED FOR INGRESS AND EGRESS, PLANTS, TREES, SHRUBBERY, FENCES, LANDSCAPING OR SIMILAR ITEMS BEING NATURAL OR ARTIFICIAL.
- SANITARY SEWERS ARE TO RECEIVE SANITARY WASTES ONLY. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
- ANY DISTURBANCE OF EXISTING NATURAL FEATURES SHALL BE SAFEGUARDED SO AS NOT TO CAUSE DETRIMENTAL EROSION. AS EARTHWORK IS PERFORMED, STRAW BALES AND SILT FENCES SHALL BE UTILIZED TO MANAGE STORM RUNOFF AND TO FILTER SOME OF THE EXISTING SOILS. ALL NATURAL VEGETATION TO REMAIN EXCEPT IN AREAS AFFECTED BY IMPROVEMENTS.
- STORM WATER AND EXTRANEOUS FLOWS ARE PROHIBITED FROM ENTERING THE EXISTING SYSTEM DURING CONSTRUCTION. NO OPEN CUT TRENCHES WILL BE ALLOWED TO REMAIN OVERNIGHT. STORM DRAINS, DIVERSION DITCHES, PUMPS, ETC., SHALL BE USED AS REQUIRED TO MAINTAIN THE INTEGRITY OF THE SYSTEM AT ALL TIMES.
- WARREN COUNTY WATER AND SEWER DEPARTMENT SHALL ESTABLISH PROCEDURES FOR REPAIRS TO WATER MAIN OR WATER SERVICES DAMAGED.

### ENGINEER'S NOTES

- EARTHWORK QUANTITIES ARE THE RESULT OF COMPUTER ANALYSIS. NO ADJUSTMENTS TO EARTHWORK QUANTITIES WILL BE CONSIDERED AFTER START OF CONSTRUCTION UNLESS THE DEVELOPER AND/OR ENGINEER MODIFY THE GRADING PLAN.
- CONSTRUCTION STAKING TO BE PROVIDED AS FOLLOWS:
  - CENTERLINE - ALL STREETS - 50 FOOT STATIONS - TWO (2) TIMES.
  - CURB STAKING - 25 FOOT STATIONS - ONE (1) TIME.
  - SANITARY SEWERS - OFFSET STAKES AT ALL MANHOLES WITH CHECK STAKES AT 50 - AND 100 FEET OUT OF MANHOLES - STANDARD CUT SHEETS TO BE PROVIDED ONE (1) TIME.
  - STORM SEWERS - OFFSET STAKES AT ALL STORM STRUCTURES - ONE (1) TIME.
  - WATER MAIN & FIRE HYDRANT - OFFSET STAKES AT 50 FOOT STATIONS ONE (1) TIME.
  - UTILITY CROSSOVERS - OFFSET STAKING - ONE (1) TIME.
  - SEWER LATERALS - LATHS SET AT TERMINUS FOR EACH LOT - ONE (1) TIME.
- IF ANY QUESTIONS EXIST, AS TO THE PURPOSE OR INTENT OF GRADES OR STAKES, THE CONTRACTOR SHALL NOT ASSUME, BUT SHALL CONTACT THE ENGINEER PRIOR TO PROCEEDING.

### SAFETY

SANITARY SEWAGE FLOWS: THE EXISTING SANITARY SEWERS CONTAIN NORMAL DOMESTIC SANITARY SEWAGE FLOWS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE AWARE OF ANY POTENTIAL HAZARDS THAT MAY BE PRESENT WHEN WORKING AROUND THESE SEWERS. THE CONTRACTOR SHALL HOLD THE VILLAGE OF SOUTH LEBANON AND THE ENGINEER HARMLESS FROM ANY CLAIMS ARISING FROM INJURY, ILLNESS, OR DISEASE TO HIS EMPLOYEES AS A RESULT OF CONTACT WITH ANY SANITARY SEWAGE.

### ENVIRONMENTAL

ALL SEWER LINE EXCAVATION AND GRADING WORK SHALL BE RESTRICTED TO PERIODS WITH DRY WORKING CONDITIONS. WORK IN STREAM CORRIDORS SHALL BE DONE DURING PERIODS OF LOW FLOWS. AREAS OF EXPOSED SOIL SHALL BE LIMITED TO THE IMMEDIATE WORK SITES. TEMPORARY EROSION CONTROL MEASURES, SUCH AS HAY BALES, FILTER FABRICS, DIKES, SLOPE DRAINS, SEDIMENT BASINS, MULCHING, AND SEEDING SHALL BE UTILIZED AS NECESSARY TO PREVENT OR CONTAIN EROSION AND SEDIMENTATION. ALL STOCKPILES OF TOPSOIL AND OTHER ERODIBLE MATERIALS NOT SCHEDULED FOR REPLACEMENT WITHIN ONE MONTH OF WHEN EXCAVATED SHALL BE COVERED OR TEMPORARILY SEEDED. SILT BARRIERS SHALL BE POSITIONED BETWEEN SUCH STOCKPILES AND ADJACENT STREAMS. FLOWS FROM DEWATERING TRENCHES SHALL BE FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE. SEWER TRENCHES ARE TO BE BACKFILLED ON A DAILY BASIS.

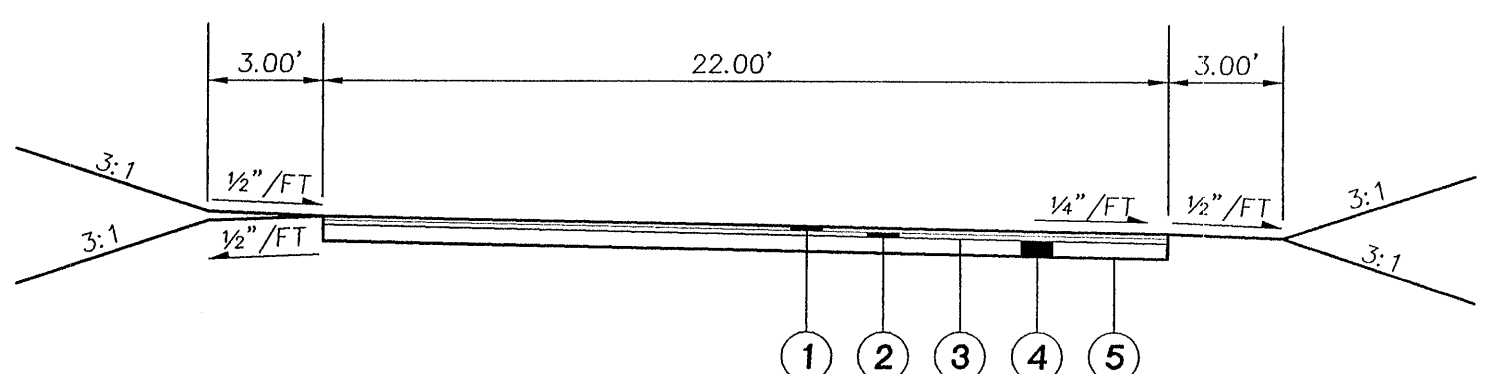
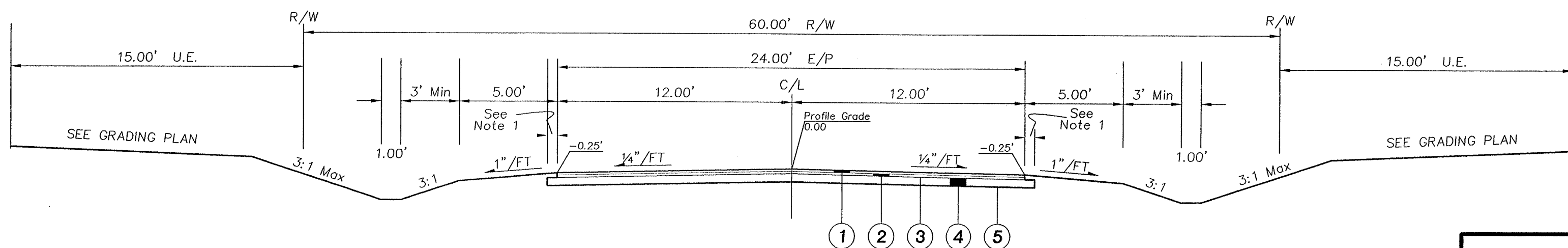
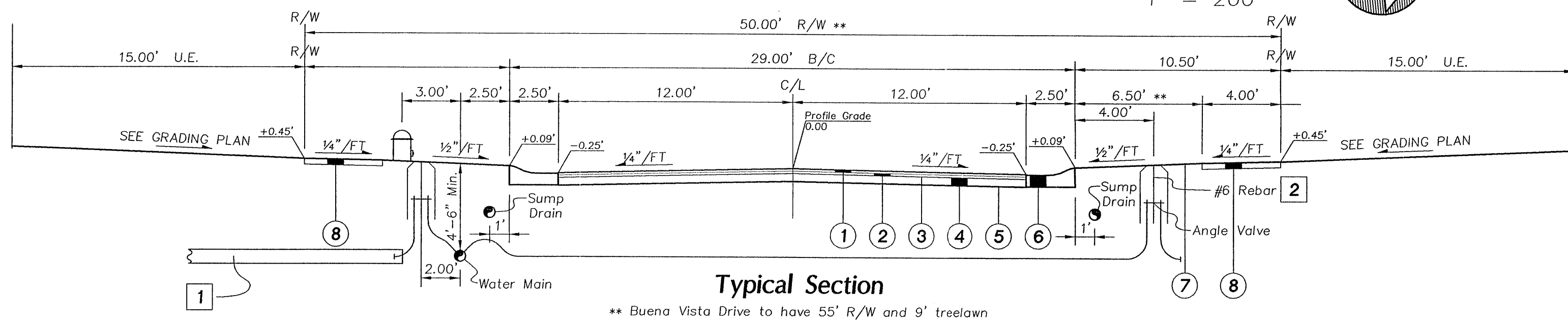
### UTILITIES

EXISTING SANITARY SEWERS: LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL SANITARY SEWERS AND SERVICE LATERALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN OPERATIONS OF THE EXISTING SEWERS THROUGHOUT THE CONNECTION TO THE EXISTING MANHOLE.

### CONSTRUCTION

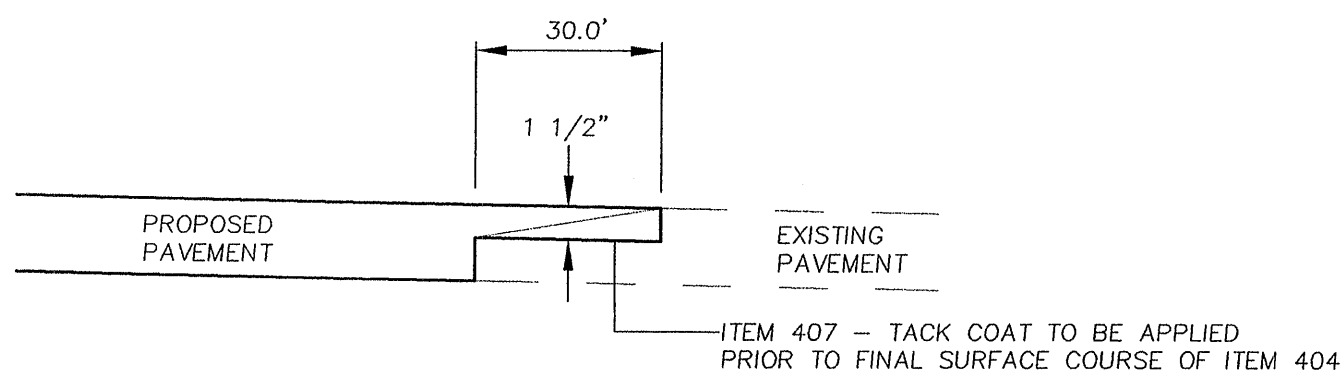
SANITARY SEWER-MANHOLE CONNECTIONS: THE SANITARY SEWER PIPE TO MANHOLE CONNECTIONS SHALL BE OF A FLEXIBLE WATERTIGHT JOINT OF APPROVED MANUFACTURE. THE JOINT MAY BE OF THE FOLLOWING DESIGN (A) RUBBER SLEEVE WITH STAINLESS STEEL BANDING, (B) RUBBER GASKET COMPRESSION, OR (C) RUBBER GASKET EXPANSION.

THE SANITARY SEWER SHOULD BE DESIGNED AND CONSTRUCTED PER RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES, "TEN STATE STANDARDS" AND THE WARREN COUNTY SEWER DISTRICT STANDARDS.



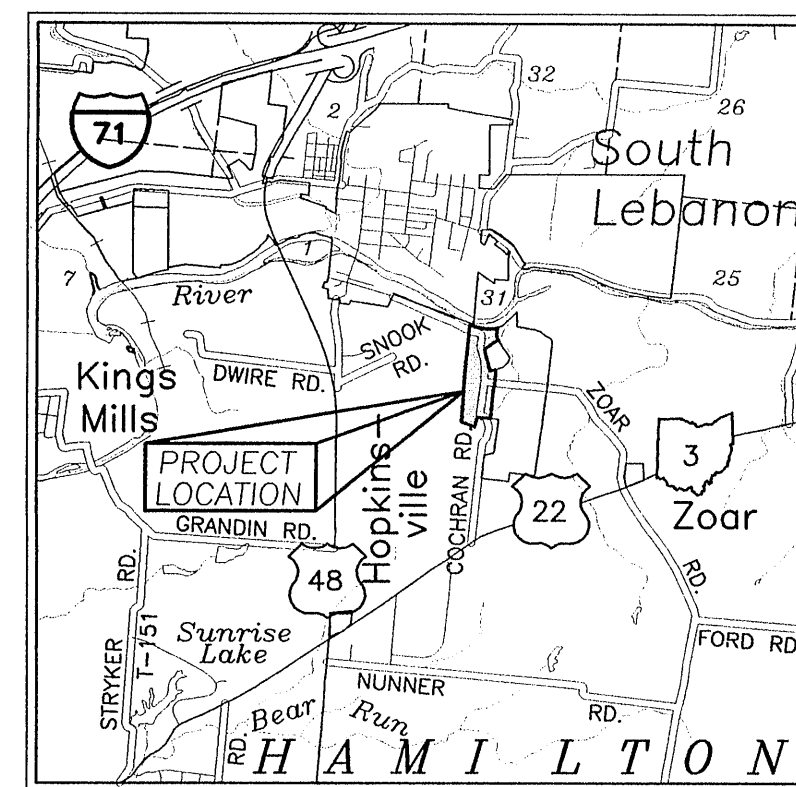
Typical Section  
Private Drives

Typical Section  
Zoar Road Realignment



BUTT JOINT

Record Drawings  
11-12-14



VICINITY MAP

Not to Scale

### INDEX OF SHEETS

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- RIVERVIEW DRIVE PLAN & PROFILE
- COCHRAN ROAD PLAN & PROFILE
- 3a. ZOAR ROAD PLAN
- 3b. ZOAR ROAD STRIPING PLAN
4. RITCHEY LANE PLAN & PROFILE
5. BUENA VISTA DRIVE PROFILE AND INTERSECTION DETAILS
6. GRADING PLAN
7. WARREN COUNTY WATER DETAILS SHEET 1
8. WARREN COUNTY WATER DETAILS SHEET 2
9. SOIL AND EROSION CONTROL DETAILS

### OWNER/DEVELOPER:

THE VILLAGES AT RIVER'S BEND, LTD.  
7303 TYLER'S CORNER DRIVE  
WEST CHESTER, OH 45069  
(513) 779-3839

### ENGINEER/SURVEYOR:

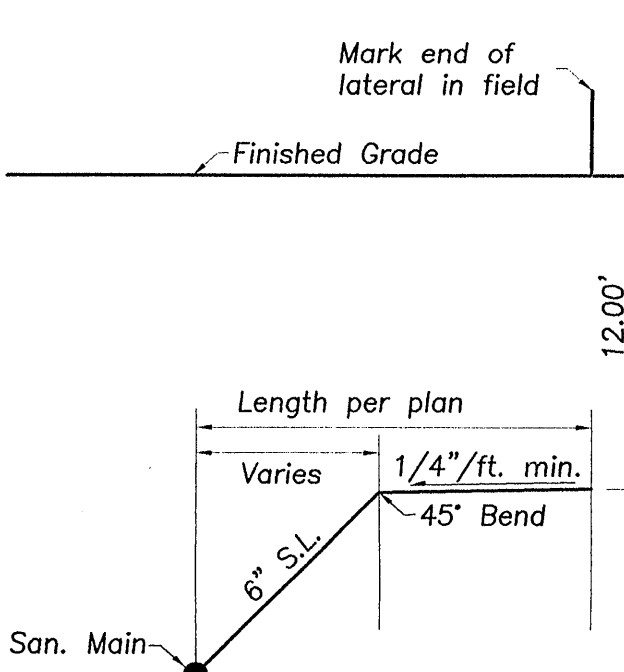
BAYER BECKER  
6900 TYLERSVILLE ROAD  
SUITE A  
MASON, OHIO 45040  
(513) 336-6600

### LEGEND

- Item 404--(1 1/2") Asphalt Concrete Surface Course
- Item 403--(1 1/2") Asphalt Concrete Leveling Course
- Item 407--Tack Coat MS-2, RS-1, or RC-250
- Item 301--2 (2 1/2") courses Bituminous Aggregate Base
- Item 203--Sub grade Compaction
- Type "C" Curb & Gutter (Warren County Standard)
- provide (4") min. topsoil seed & mulch or sod.
- Item 608--(4") thick concrete sidewalk, 4' wide, to be 1/2" high curb & sod.

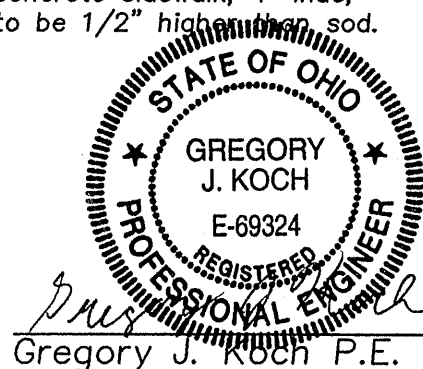
### NOTES

- Plastic tubing shall be 20'± long & extend (min of 12" into the lots) to clear telephone & electric easements (On electric side only)
- #6 Rebar - Contractor shall install 2 #6 Rebar 5' long vertically at angle valves
- Water services to be lowered when conflict with storm sewer occurs
- Base course to extend six inches from the edge of pavement.
- The entry from Zoar Rd. to have the same pavement structure.



### DETAIL: SANITARY SEWER LATERALS

NOTE: THIS DETAIL IS TO BE USED WHENEVER THE HEIGHT BETWEEN THE END OF THE LATERAL AND FINISHED GRADE EXCEEDS 13'.



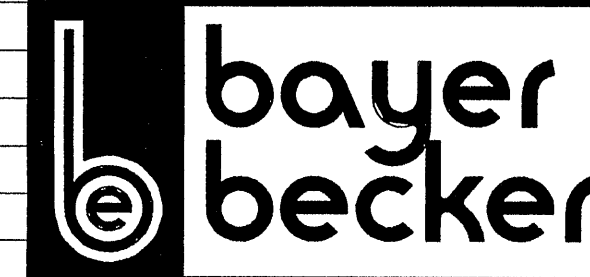
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MAY 04 2005

JOB LOG		REVISIONS	
DATE	COMMENT	NO.	DATE
08-21-03	Rev. Per Internal	1.	03-23-05
09-08-03	Submitted for Review		
09-29-03	Rev. Per W.C.W.&S. and Village Engineer	2.	4-28-05
10-15-03	Rev. Per W.C.W.&S.		
03-23-05	Submitted with Zoar Rd. Realignment		

### TITLE SHEET

## THE HOMESTEAD AT RIVER'S BEND

SECTION ONE  
MILITARY SURVEY No. 1547 & 1546  
VILLAGE OF SOUTH LEBANON  
WARREN COUNTY, OHIO

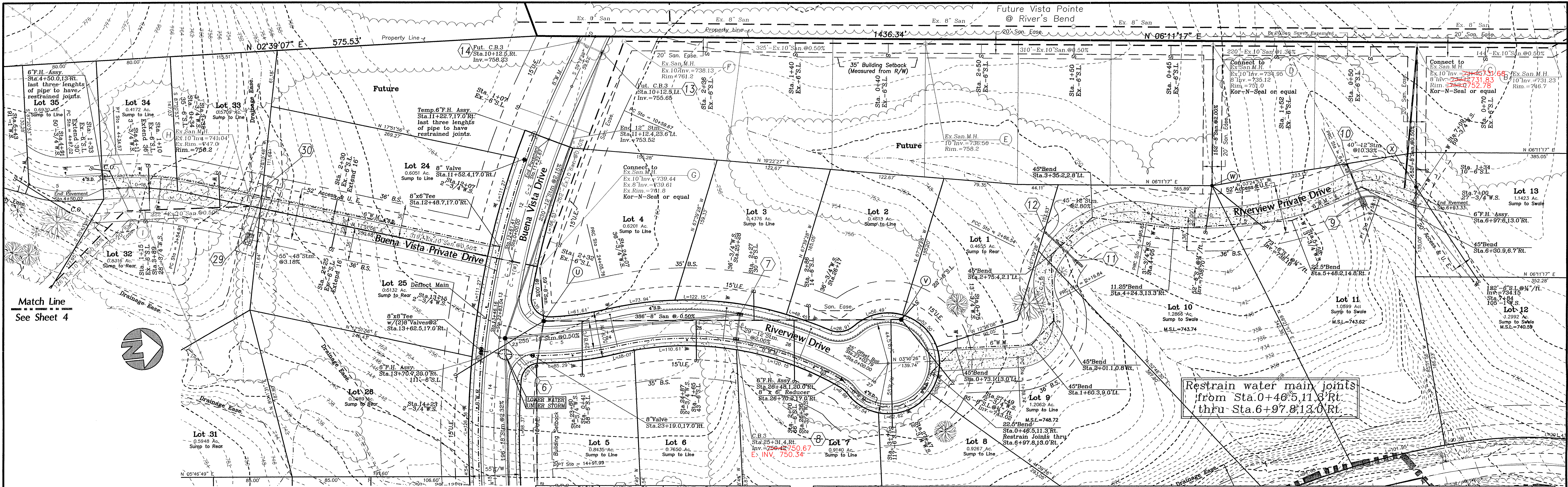


engineers  
planners  
architects  
surveyors

date: 8-18-03  
scale: As Noted  
dwg by: J.M.R.  
chk by:  
sheet: 1 of 9  
job # 03W021

6900 Tylersville Rd. Mason, OH 45040 513-336-6600

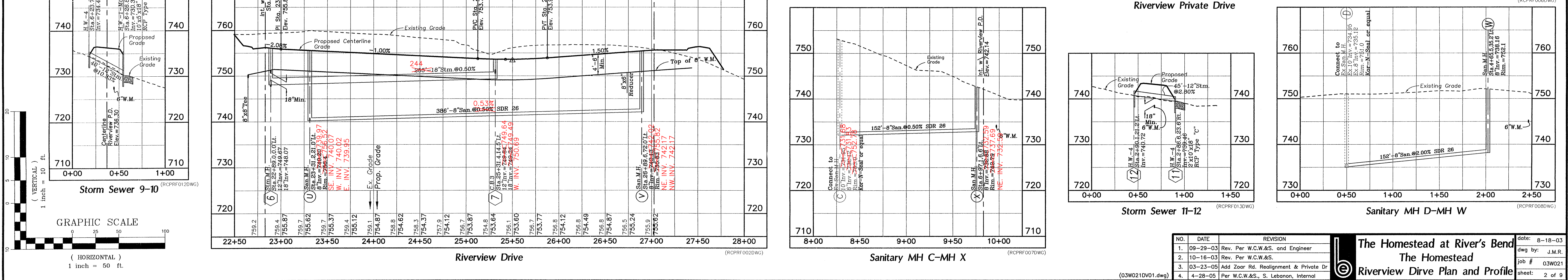
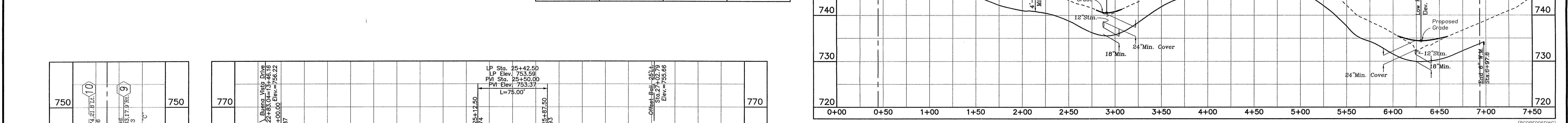




NOTES

- Location of existing utilities to be determined in the field prior to beginning work.
- Sanitary laterals are stationed from downstream manhole(0+00).
- Storm sewer material shall have manning's "n" value equal to or less than 0.012.
- Restrained joints shall be provided at all bends in the water main.
- All Catch Basin types are O.D.O.T. Standard.
- Existing sanitary sewer invert to be field verified prior to construction.
- Length of 3/4" W.S. does not include two feet of additional copper to account for turn up to the angle valve.
- MSL stands for Minimum sanitary Service Level.

CURVE #1(W)	CURVE #2	CURVE #3	CURVE #4
$\Delta = 23^{\circ}30'41"$ $R = 900.00'$ $T = 187.22'$ $L = 369.32'$ $Ch = S 75^{\circ}03'29" E$	$\Delta = 08^{\circ}49'56"$ $R = 900.00'$ $T = 68.51'$ $L = 138.74'$ $Ch = S 67^{\circ}43'06" E$	$\Delta = 05^{\circ}23'43"$ $R = 900.00'$ $T = 42.41'$ $L = 84.75'$ $Ch = S 74^{\circ}49'56" E$	$\Delta = 09^{\circ}17'02"$ $R = 900.00'$ $T = 73.08'$ $L = 145.83'$ $Ch = S 82^{\circ}10'18" E$
CURVE #5	CURVE #6	CURVE #7	CURVE #8
$\Delta = 20^{\circ}05'20"$ $R = 350.00'$ $T = 61.99'$ $L = 122.77'$ $Ch = S 02^{\circ}25'33" W$	$\Delta = 48^{\circ}37'26"$ $R = 350.00'$ $T = 158.12'$ $L = 297.03'$ $Ch = N 16^{\circ}41'36" E$	$\Delta = 11^{\circ}44'22"$ $R = 400.00'$ $T = 62.47'$ $L = 80.10'$ $Ch = N 16^{\circ}41'14" W$	$\Delta = 53^{\circ}30'35"$ $R = 400.00'$ $T = 25.21'$ $L = 46.70'$ $Ch = S 84^{\circ}18'38" E$
CURVE #9	CURVE #10	CURVE #11	CURVE #12
$\Delta = 74^{\circ}05'24"$ $R = 100.00'$ $T = 75.48'$ $L = 129.31'$ $Ch = N 21^{\circ}00'39" W$	$\Delta = 36^{\circ}26'27"$ $R = 350.00'$ $T = 115.21'$ $L = 222.80'$ $Ch = N 02^{\circ}11'10" W$	$\Delta = 45^{\circ}26'35"$ $R = 500.00'$ $T = 20.94'$ $L = 38.66'$ $Ch = S 02^{\circ}18'54" W$	$\Delta = 15^{\circ}12'49"$ $R = 300.00'$ $T = 40.06'$ $L = 79.66'$ $Ch = S 10^{\circ}15'31" W$



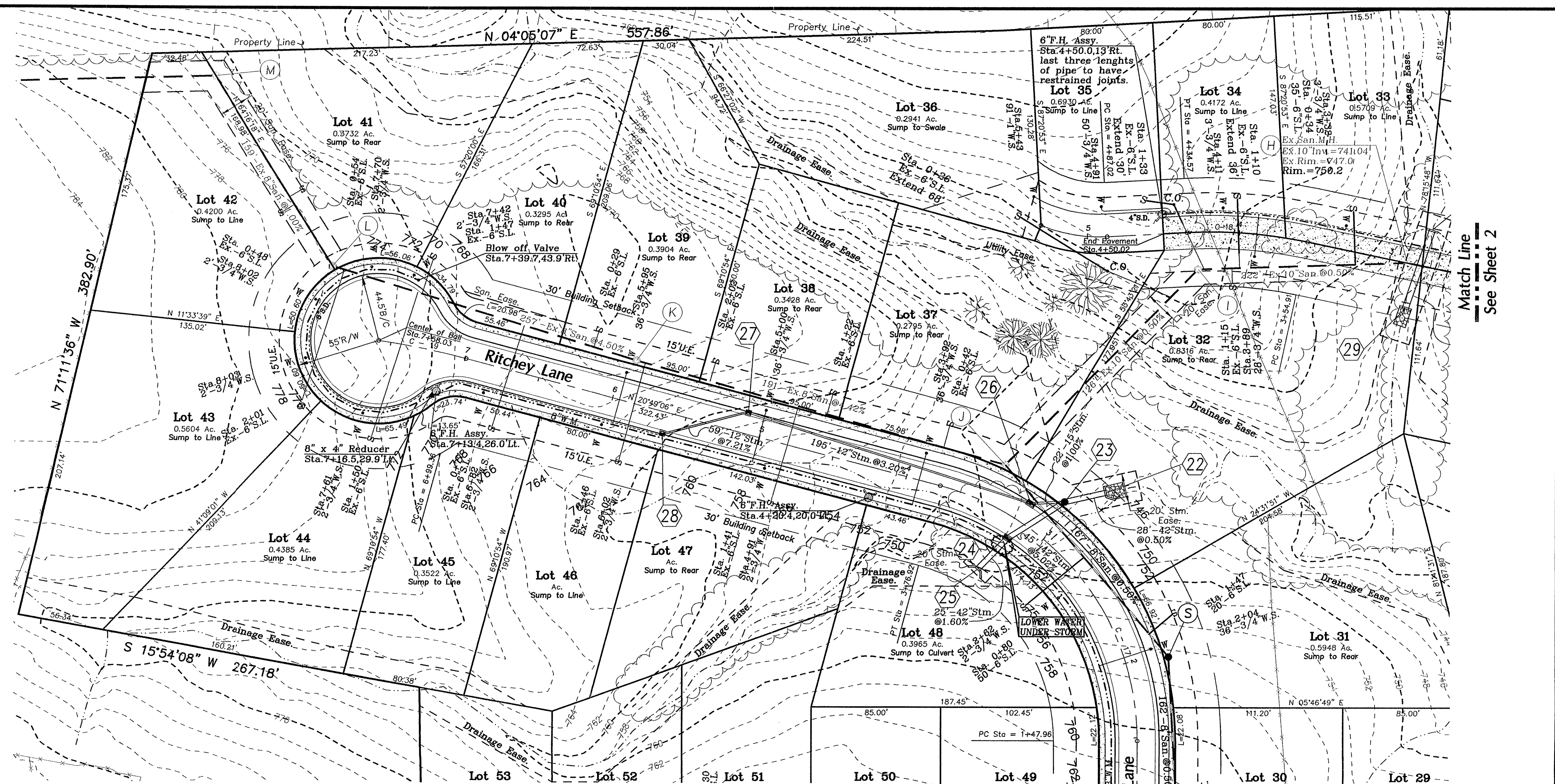








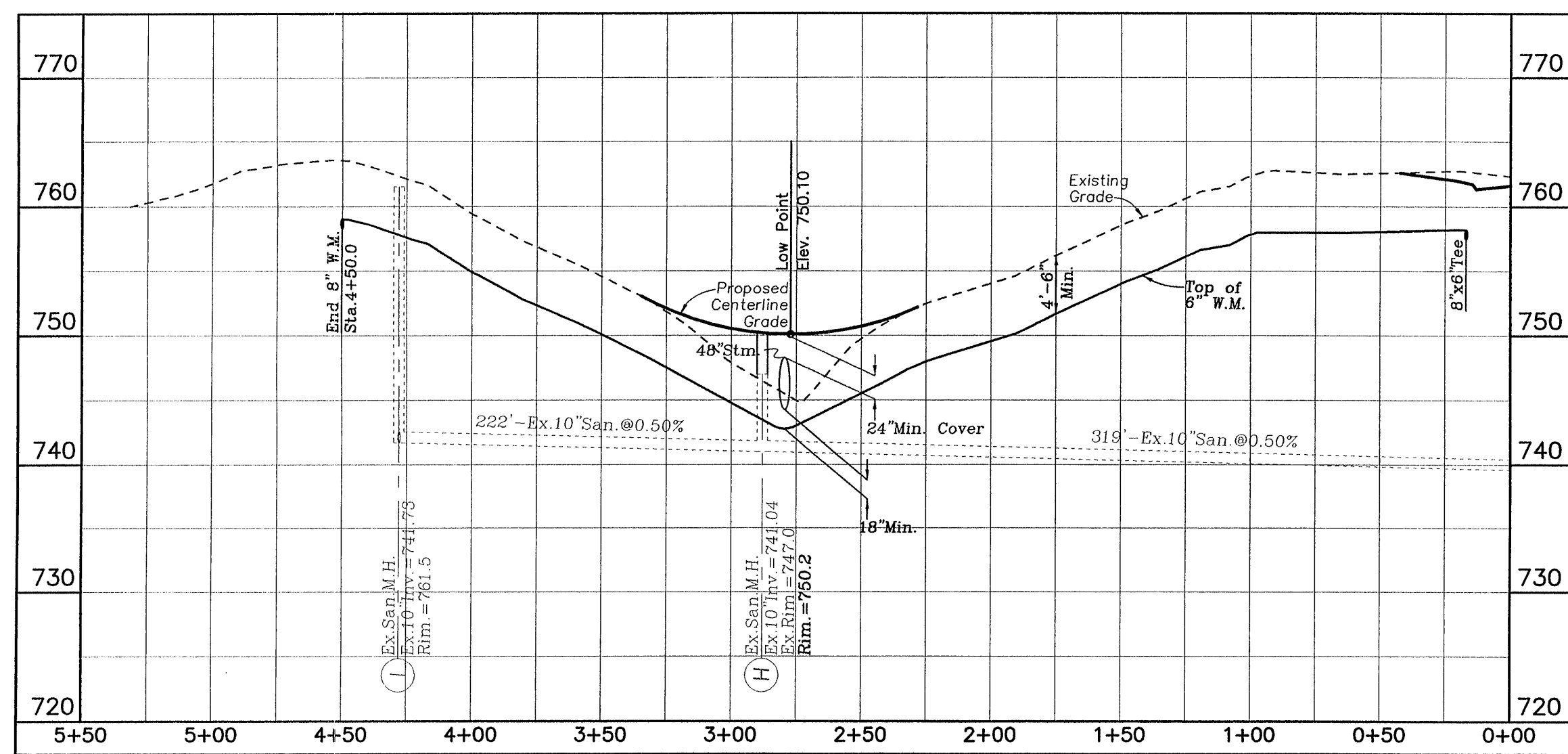
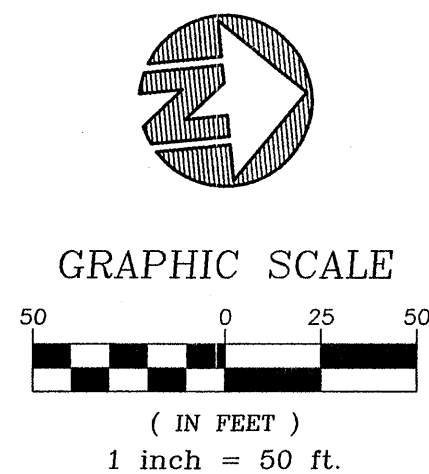




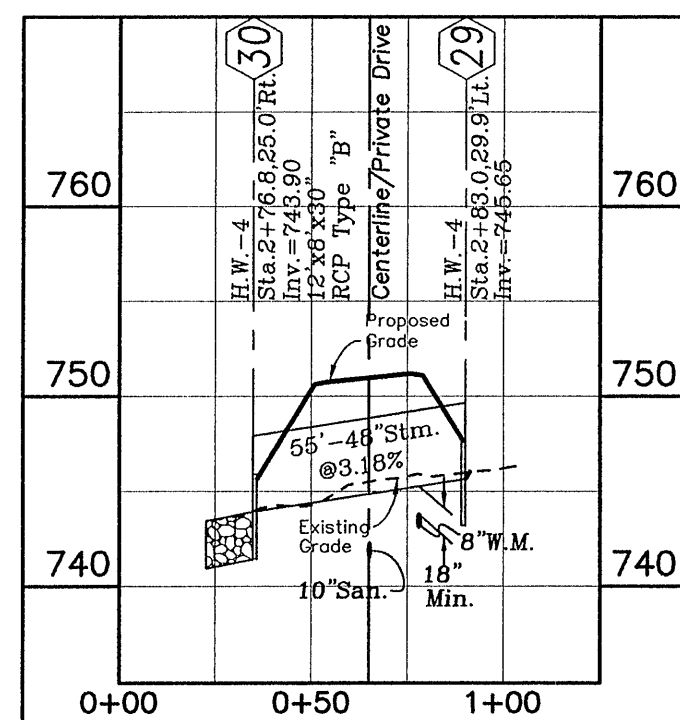
CURVE #17	CURVE #18	CURVE #19
Δ = 74°57'43"	Δ = 15°12'49"	Δ = 06°43'25"
R = 175.00'	R = 300.00'	R = 500.00'
T = 134.19'	T = 40.06'	T = 29.37'
L = 228.96'	L = 79.66'	L = 58.68'
Ch= S 58°17'58" W 212.97'	Ch= S 10°15'31" W 79.42'	Ch= N 17°27'24" E 58.64'

## NOTES

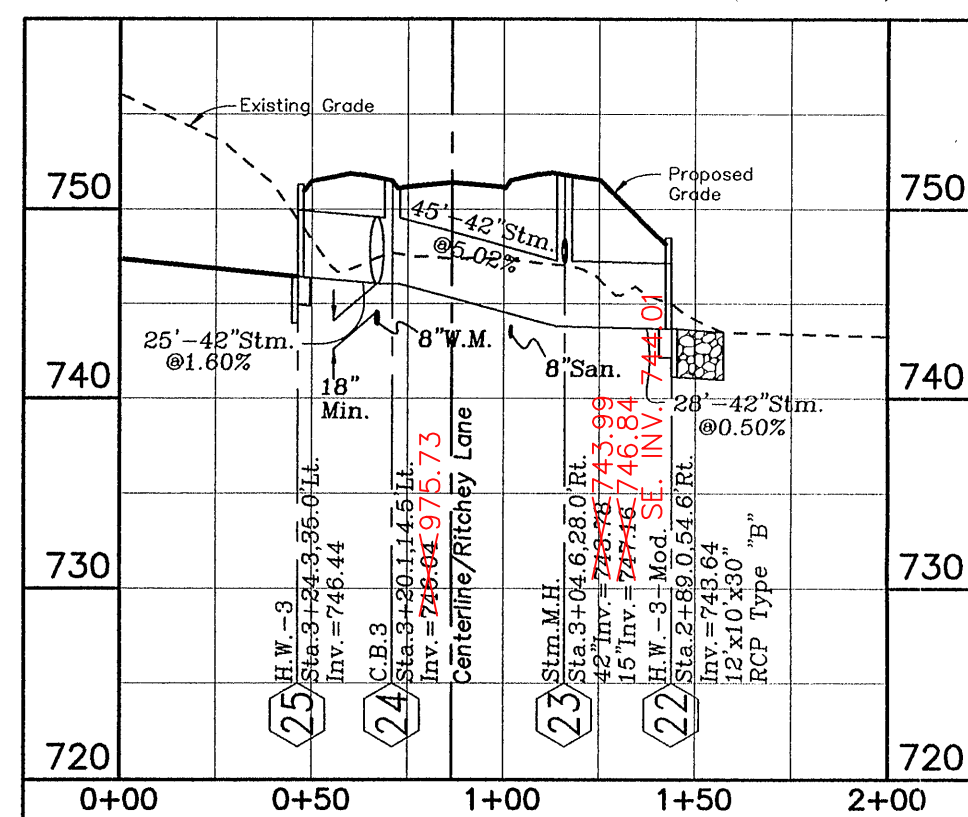
1. Location of existing utilities to be determined in the field prior to beginning work.
2. Sanitary laterals are stationed from downstream manhole(0+00).
3. Storm sewer material shall have manning's "n" value equal to or less than 0.012
4. Restrained joints shall be provided at all bends in the water main.
5. All Catch Basin types are O.D.O.T. Standard.
6. Existing sanitary sewer invert to be field verified prior to construction.
7. Length of 3/4" W.S. does not include two feet of additional copper to account for turn up to the angle valve.



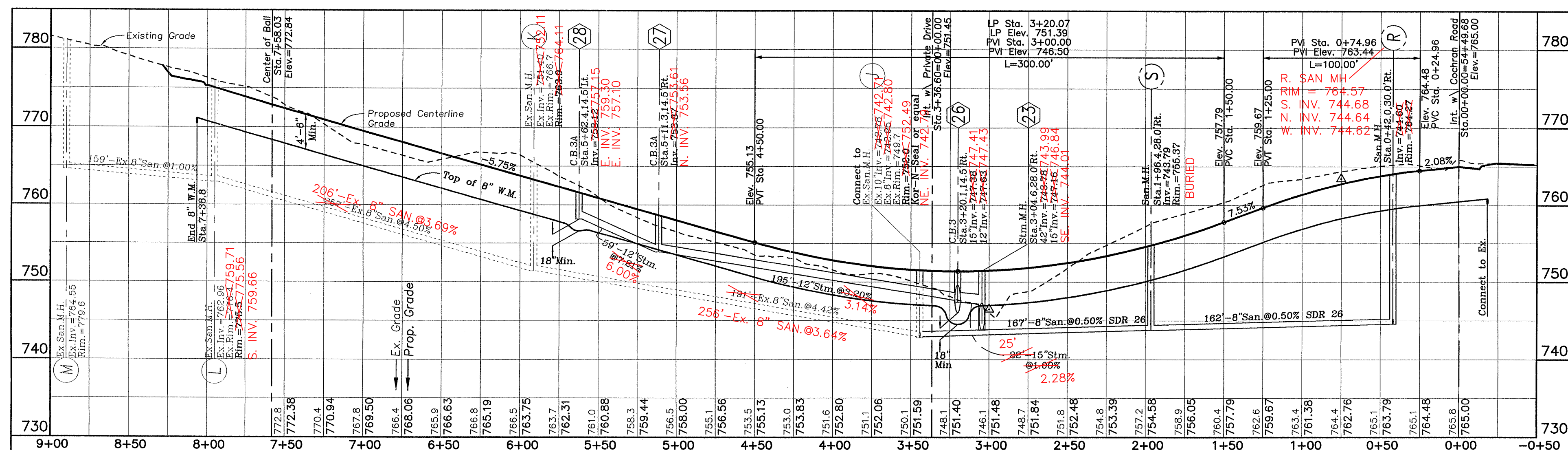
Ritchey Private Drive



### Storm Sewer 29-30



Storm Sewer 22-25



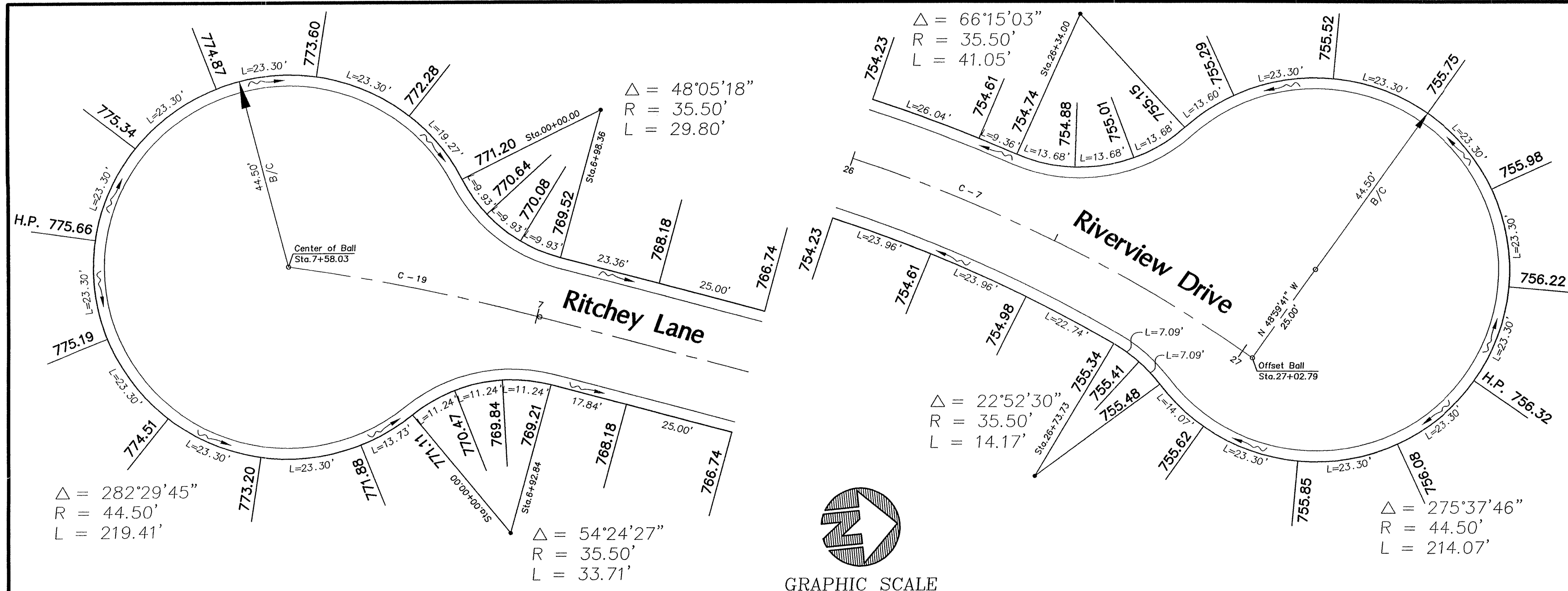
Ritchey Lane

NO.	DATE	REVISION
1.	09-29-03	Rev. Per W.C.W.&S. and Engineer

**The Homestead at River's Bend**  
The Homestead  
Ritchey Lane Plan and Profile

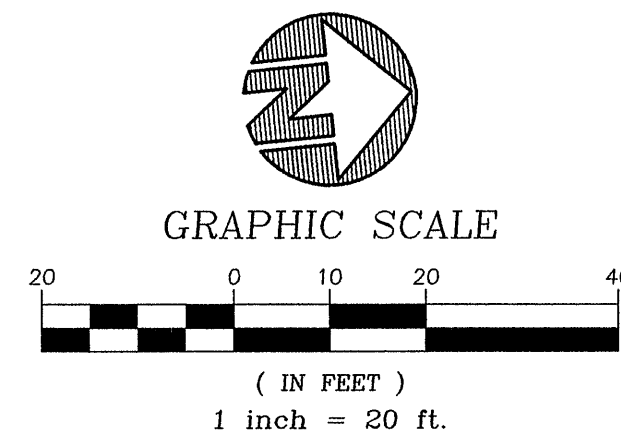
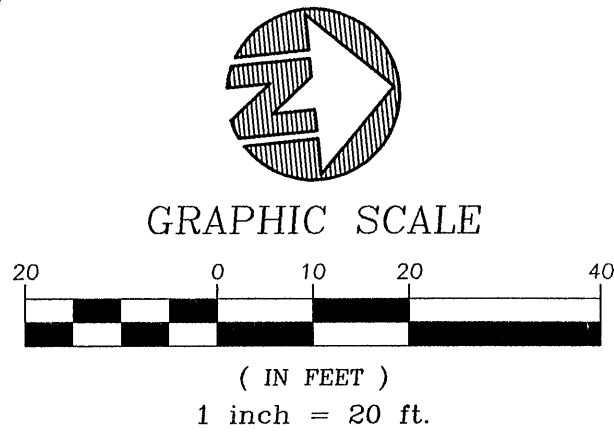
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dwg by:	J.M.R.
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sheet:	4 of 9



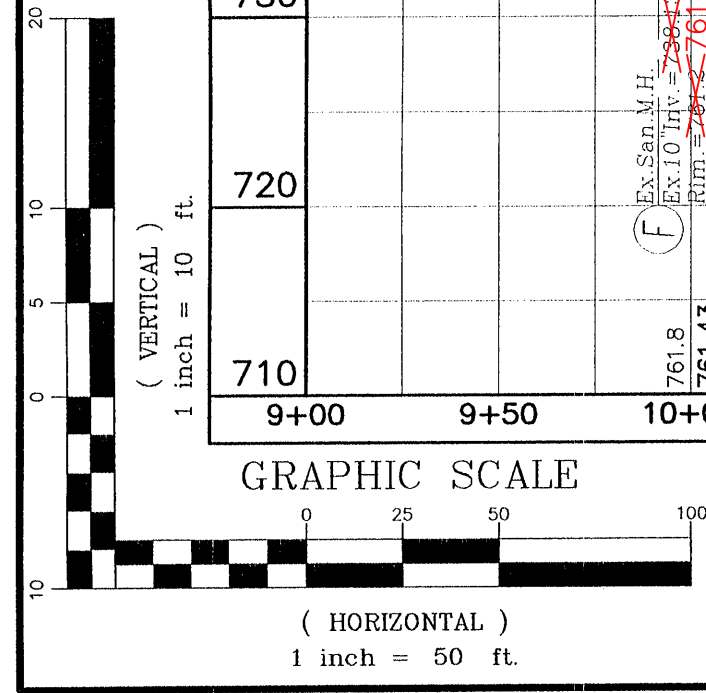
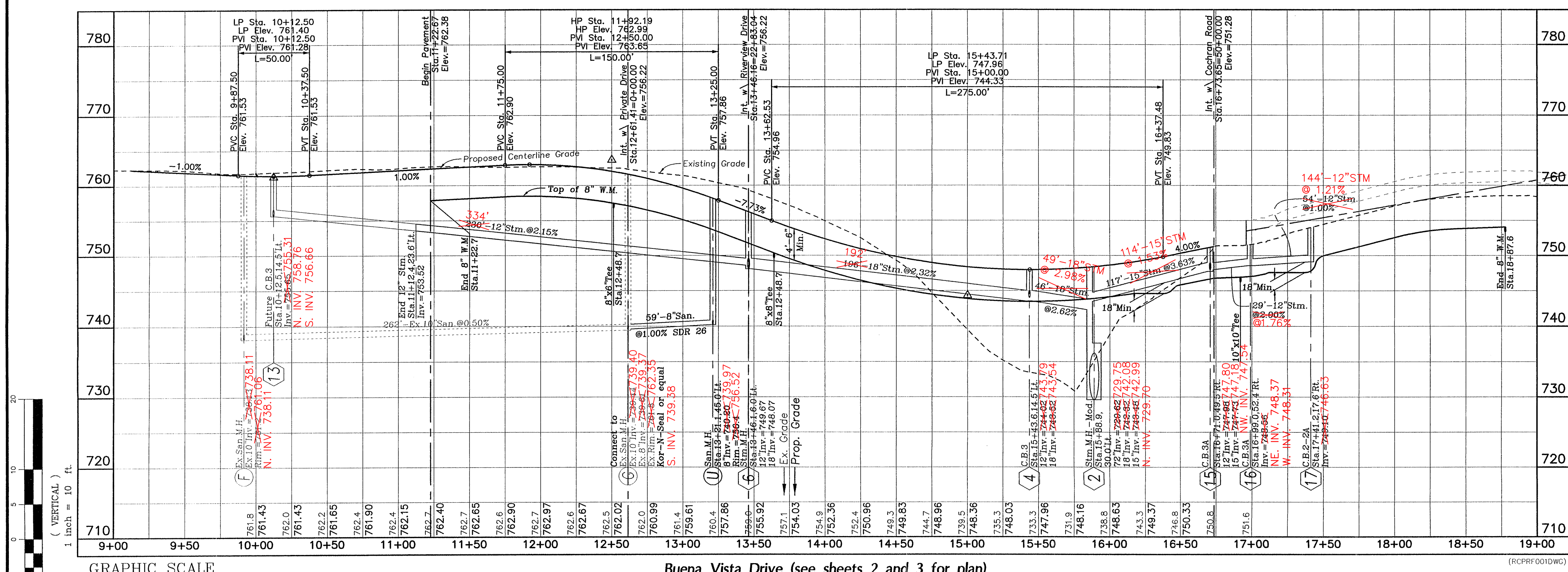
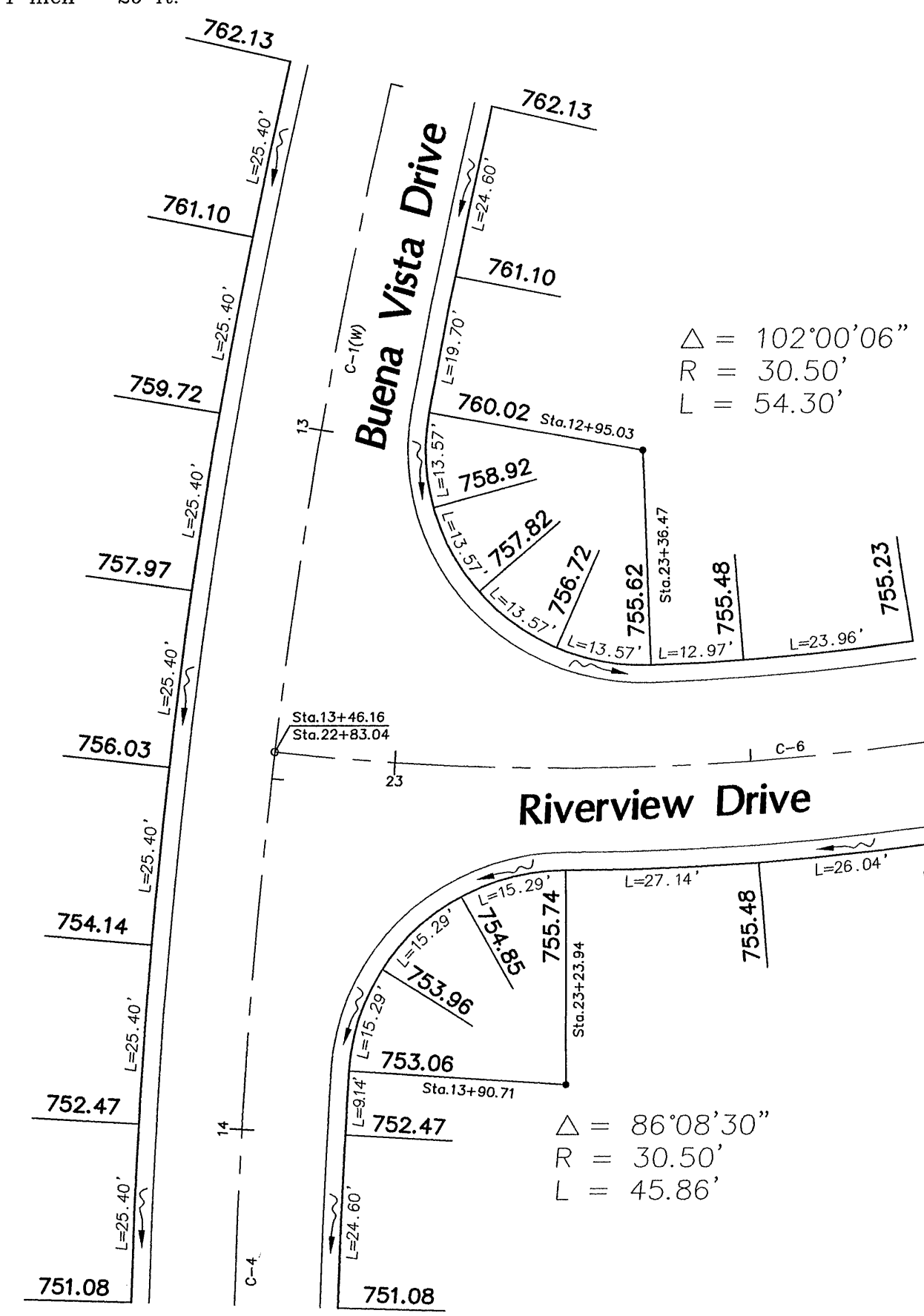
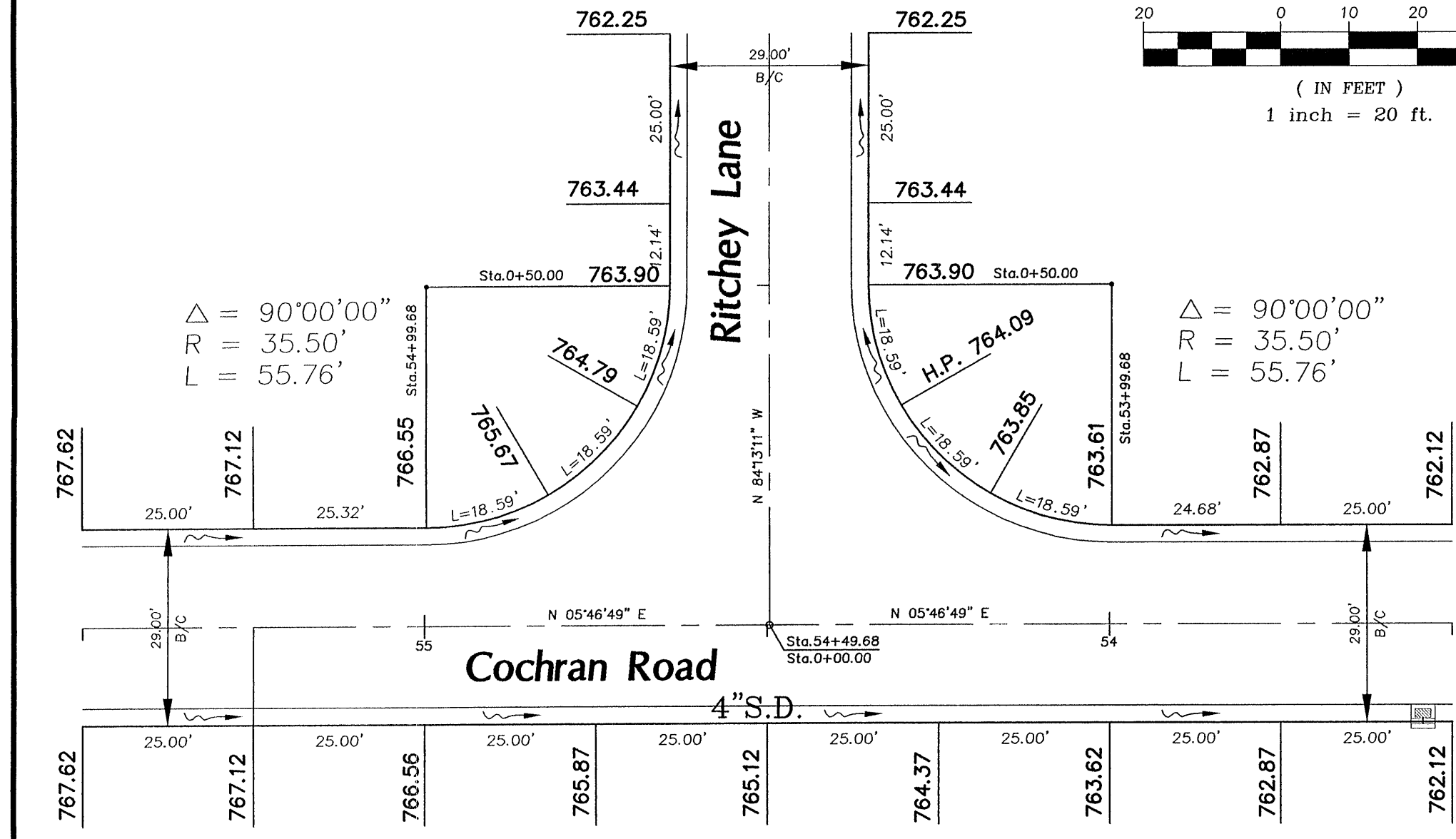


CURVE #1(W)	CURVE #6
Δ = 23°30'41"	Δ = 20°03'20"
R = 300.00'	R = 350.00'
T = 187.29'	T = 61.99'
L = 369.32'	L = 122.72'
Ch = S 79°03'29" E 366.73'	Ch = S 02°25'33" W 122.09'

CURVE #7	CURVE #15	CURVE #19
Δ = 48°37'26"	Δ = 18°42'29"	Δ = 06°43'25"
R = 350.00'	R = 200.00'	R = 500.00'
T = 158.12'	T = 32.94'	T = 29.37'
L = 297.03'	L = 65.30'	L = 58.68'
Ch = N 16°41'36" E 288.19'	Ch = S 14°19'18" W 65.01'	Ch = N 17°27'24" E 58.64'



See Sheet 3A for Zoar Road, Buena Vista Drive and Homestead Lane



NO.	DATE	REVISION
1.	09-29-03	Rev. Per W.C.W.&S. and Engineer
2.	03-23-05	Add Zoar Rd. Realignment & Private Dr
3.	4-28-05	Per W.C.W.&S., S. Lebanon, Internal

The Homestead at River's Bend	date: 8-18-03
The Homestead	dwg by: J.M.R.
Profiles & Intersection Details	job #: 03W021
	sheet: 5 of 9

(03W021D01.dwg)