

GENERAL NOTES

- Gas, water and other underground utilities shall not conflict with the depth or horizontal location of existing and proposed sanitary and storm sewers including house laterals.
- The existing underground utilities shown herein were plotted from available information and do not necessarily reflect the actual existence, nonexistence, size, type, number, or location of these or other utilities. The general contractor shall be responsible for verifying the actual location of all underground utilities, shown or not shown, and shall be located in the field prior to any grading, excavation, or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMo.
- All filled places in public right-of-way (State, County or City roads) shall be compacted to 90% of maximum density as determined by the "Standard Proctor Test A.A.S.H.T.O. T-99", Method C (A.S.T.M. D-698) unless otherwise specified by local governing authority specifications, or by soils report for this project. All test shall be verified by the inspecting soils engineer.
- All filled places under buildings, proposed storm and sanitary sewer lines and/or paved areas including trench backfills shall be compacted to 90% of maximum density as determined by the "Modified A.A.S.H.T.O. T-180 Compaction Test" (A.S.T.M. D-1557) unless otherwise specified by local governing authority specifications, or by soils report for this project. All tests shall be verified by the inspecting soils engineer.
- All trench backfills under paved areas shall be granular backfill, and shall be compacted to 90% of maximum density as determined by the "Modified A.A.S.H.T.O. T-180 compaction test," (A.S.T.M. D-1557). All trench backfills may be earth material free of large clods or stones and will be water jetted.
- No area shall be cleared without permission of the developer.
- All grades shall be within 0.2 feet more or less of those shown on the grading plan.
- No slope shall be greater than 3:1 and shall be either sodded or seeded and mulched.
- Siltation control devices shall be as shown on plans, and approved by the local governing authority. Additional siltation control, if required, will be placed at the direction of the soils engineer on site and the local governing authority prior to placement.
- Grading operations on this project shall comply with the soils report by Geotechnology, Inc. dated July 31, 1987.
- All grading on Missouri State Highway right-of-way shall be seeded and mulched and all disturbed right-of-way markers shall be reset at the completion of grading.
- Polyvinyl chloride (PVC) sanitary sewer pipe shall meet the following requirements: A.S.T.M. D-3034 SDR-35, with wall thickness compression joint A.S.T.M. D-3212. An appropriate waterstop as approved by the sewer district shall be installed between PVC pipe and masonry (concrete and brick) structure.
- The minimum vertical distance from the low point of the basement or slab floor to the flowline of a sanitary sewer at the corresponding house or building connection shall not be less than the diameter of the main line sanitary sewer plus a vertical distance not less than two and one half feet (2-1/2').
- All P.V.C. sanitary sewer pipe to have crushed stone bedding uniformly graded between 1" and 1/4" size. This bedding shall extend from 6" below the pipe to 7/10 of the pipe diameter above the bottom of the pipe.
- All sanitary sewer service shall be a minimum of 4" diameter for single-family developments.
- Storm sewers 18" diameter or smaller shall be A.S.T.M. C-14, unless otherwise shown on plans.
- Storm sewers 21" diameter or larger shall be A.S.T.M. C-76, Class II, unless otherwise shown on plans.
- 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.
- Corrugated metal pipe shall conform to the standard specifications for corrugated culvert pipe M6, A.A.S.H.T.O. See plans for gauge.
- All manhole and inlet tops shall be built to the elevations shown on these plans. If no top elevation is shown, it will be the responsibility of the contractor to contact the engineer for such information prior to construction. 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.
- All standard street curb inlets to have front of inlet 2 feet behind curb.
- All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
- Basements 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.
- All P.V.C. water pipe shall have a minimum pressure rating of PR-200 or SDR-21.
- All water lines shall be laid at least 10 feet horizontally, from any sanitary sewer, storm sewer, or manhole. Whenever water lines must cross sanitary sewers, laterals or storm drains the water lines shall be laid at such an elevation that the bottom of the water line is 18 inches above the top of the drain or sewer. A full length of water pipe shall be centered over the sewer line to be crossed so that the joints will be equally distant from the sewer and as remote therefrom as possible. This vertical separation shall be maintained for that portion of the water line located within 10 feet, horizontally, of any sewer or drain it crosses.
- Water lines, valves, sleeves, meters and etc. shall meet all specifications and installation requirements of the local governing authority.
- All cast iron pipe for water mains shall conform to A.W.W.A. specifications 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.
- All water hydrants and valves shall be cast iron and installed in accordance with plans and details.
- All streets within the public right-of-way must meet specifications and installation requirements of the City of O'Fallon.
- Hazard markers will consist of three (3) Standard Specifications, "Manual on Uniform Traffic Control Devices", end 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.
- The City of O'Fallon, shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspection.

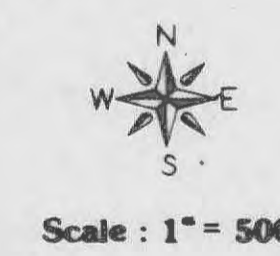
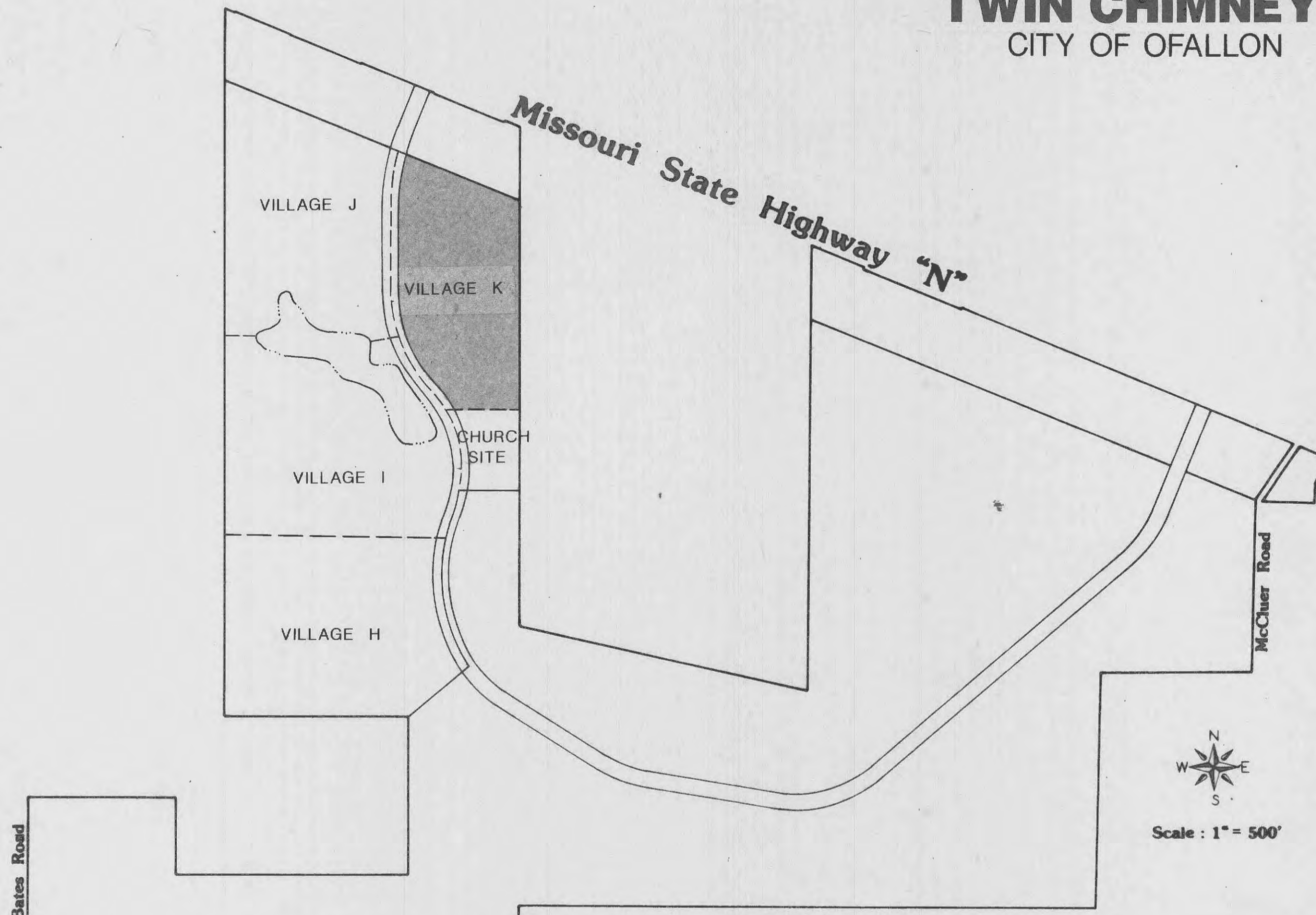
AS-BUILTS FOR VILLAGE "K"
TWIN CHIMNEYS
CITY OF OFALLON

Index

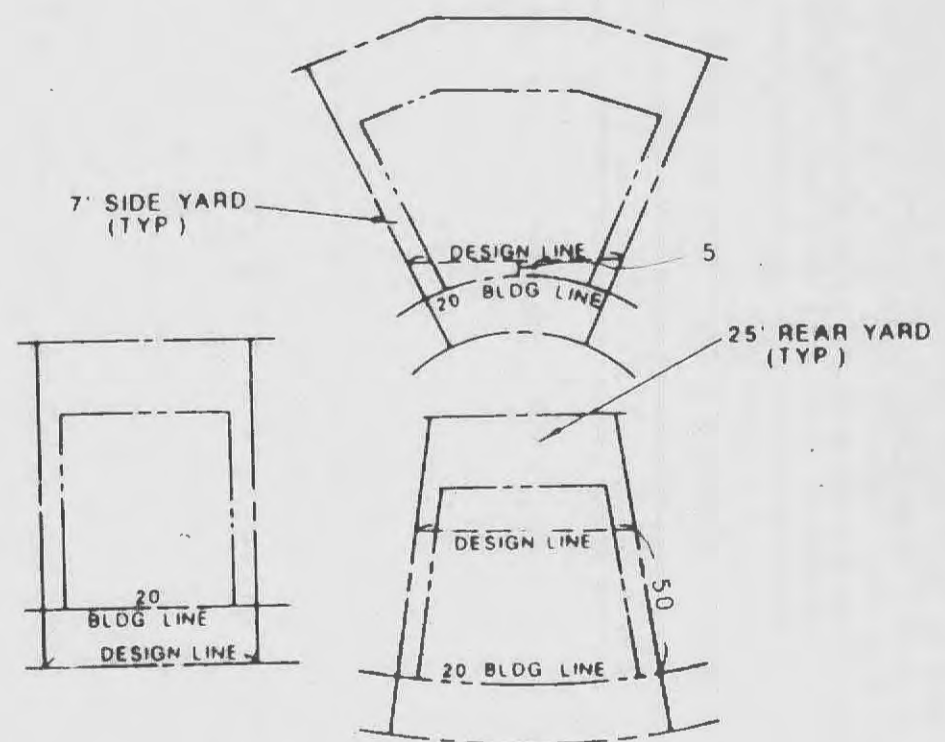
Sheet	Description
SHEET 1	COVER SHEET
SHEET 2	KEY SHEET
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SHEET 4	WATER PLAN
SHEET 5	GRADING PLAN
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SHEET 9-10	STORM PROFILES
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SHEET 12	OFFSITE DRAINAGE AREA MAP
SHEET 13	SILTATION CONTROL PLAN
SHEET 14-18	CONSTRUCTION DETAILS

This is to certify that the following As-Built locations were located in the field and are correctly shown herein.

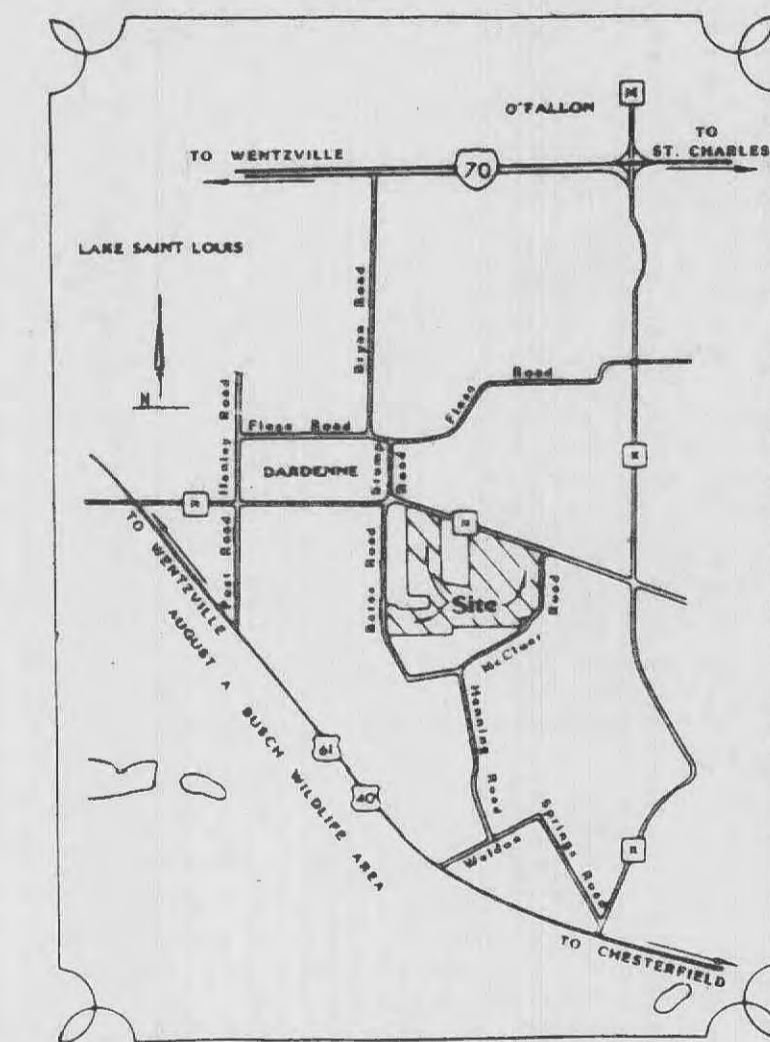
Thomas E. Smith
Thomas E. Smith
Mo. Reg. L.S. #1462



KEY MAP



LOT DESIGN CRITERIA



LOCATION MAP
N.T.S.

This Tract is Served By Or Located In:

- CENTRAL ELECTRIC POWER COOPERATIVE - TRANSMISSION LINE
Contact - Mr. Donald Shaw: phone 1-634-2454
- OUVRE ELECTRIC POWER COOPERATIVE - SECONDARY POWER SOURCE
Contact - Mr. Dan Brown: phone 441-7410
- UNION ELECTRIC COMPANY - PRIMARY POWER SOURCE
Contact - Mr. Ralph Crank, Jr.: phone 327-6203
- CONTINENTAL TELEPHONE COMPANY
Contact - Mr. Jeff Heger: phone 1-327-3054
- DUCKETT CREEK SEWER DISTRICT
Contact - Mr. Barry Smith: phone 441-1244
- ST. CHARLES COUNTY WATER DISTRICT NO. 2
Contact - Mr. Vic Kappelman: phone 239-3480
- O'FALLON FIRE PROTECTION DISTRICT
Contact - Mr. Dave House: phone 1-272-3493
- ST. CHARLES GAS COMPANY
Contact - Mr. Jim Cambron-Residential: phone 1-723-0495
Contact - Mr. Gene Bohler-Commercial: phone 1-723-0495

U.S.G.S. BENCHMARK

U.S.G.S. BENCHMARK:
Elevation = 667.59'

Orf triangulation Sta., 3.5 mi. SW. of O'Fallon, 0.5 mi. NE. of Dardenne Church, 492 ft. NW. of dwelling on land belonging to Ben Orf, 131 ft. NW. of barn, 33 ft. N. of pond, in concrete post; U.S.C. & G.S. standard disk stamped "Orf 1931".

NOTE: To convert from project datum benchmarks to U.S.G.S. datum benchmarks, subtract 0.52 feet from all elevations shown.

PROJECT BENCHMARK

BENCHMARK #12
"O" IN OPEN - FIRE HYDRANT SOUTH SIDE HWY N, ±900 WEST OF TWIN CHIMNEYS BLVD
COORDINATES 13,385 NORTH
4,718 EAST
ELEVATION 620.99'

Legend

	Sanitary Sewer (Proposed)	C.I.	Curb Inlet
	Sanitary Sewer (Existing)	D.C.I.	Double Curb Inlet
	Storm Sewer (Proposed)	G.I.	Grate Inlet
	Storm Sewer (Existing)	A.I.	Area Inlet
	Water Line & Size	D.A.I.	Double Area Inlet
	Tee & Valve	C.C.	Concrete Collar
	Hydrant	F.E.	Flared End Section
	Cap	E.P.	End Pipe
	18 Lot or Building Number	E.D.	Energy Dissipator
	Existing Fence Line	M.H.	Manhole
	Existing Tree Line	C.P.	Concrete Pipe
	Street Sign	R.C.P.	Reinforced Concrete Pipe
	Light Standard	C.M.P.	Corrugated Metal Pipe
	Existing Contour	C.I.P.	Cast Iron Pipe
	Proposed Contour	P.V.C.	Polyvinyl Chloride
	Grouted Rip-Rap	V.C.P.	Vitrified Clay Pipe
	End of Lateral	C.O.	Clean Out
	Asphalt Pavement	V.T.	Vent Trap
	Concrete Pavement		
	Storm/Sanitary Structure		
	Test Hole		
	Power Pole		
	2164 Street Address		

AS-BUILTS ADDED JANUARY, 1989
AS-BUILTS ADDED DECEMBER, 1988

1
6

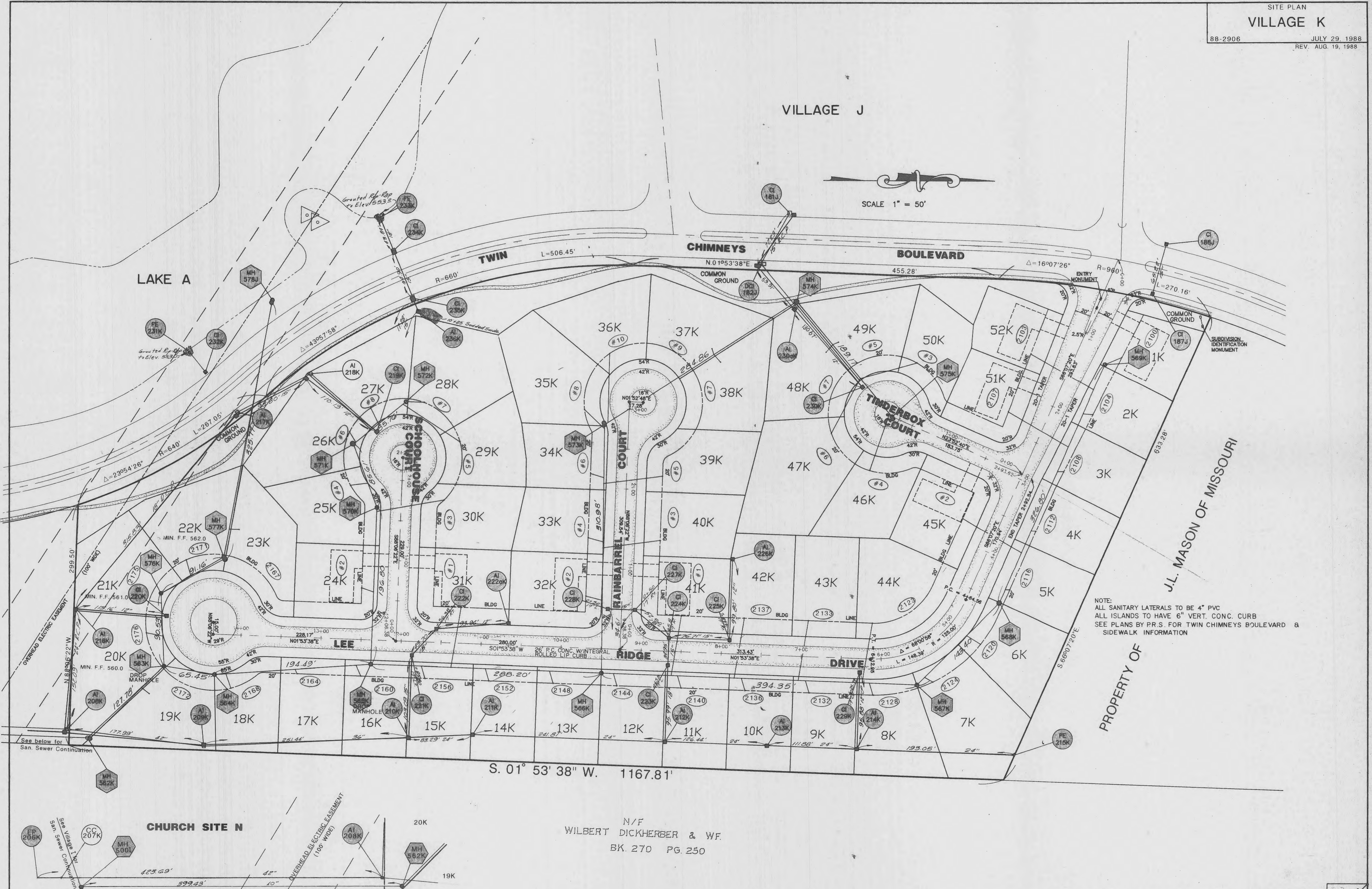
BAX ENGINEERING CO., INC.
221 Point West Blvd. St. Charles, Missouri 63301
946-6588 724-3330
Date: JULY 29, 1988 Order No.: 88-2906

PLAINTIFF'S EXHIBIT
OF-298
HLS

VILLAGE J

SCALE 1" = 50'

LAKE A



NOTE:
 ALL SANITARY LATERALS TO BE 4" PVC
 ALL ISLANDS TO HAVE 6" VERT. CONC. CURB
 SEE PLANS BY P.R.S. FOR TWIN CHIMNEYS BOULEVARD &
 SIDEWALK INFORMATION

N/F
 WILBERT DICKHERBER & W.F.
 BK. 270 PG. 250

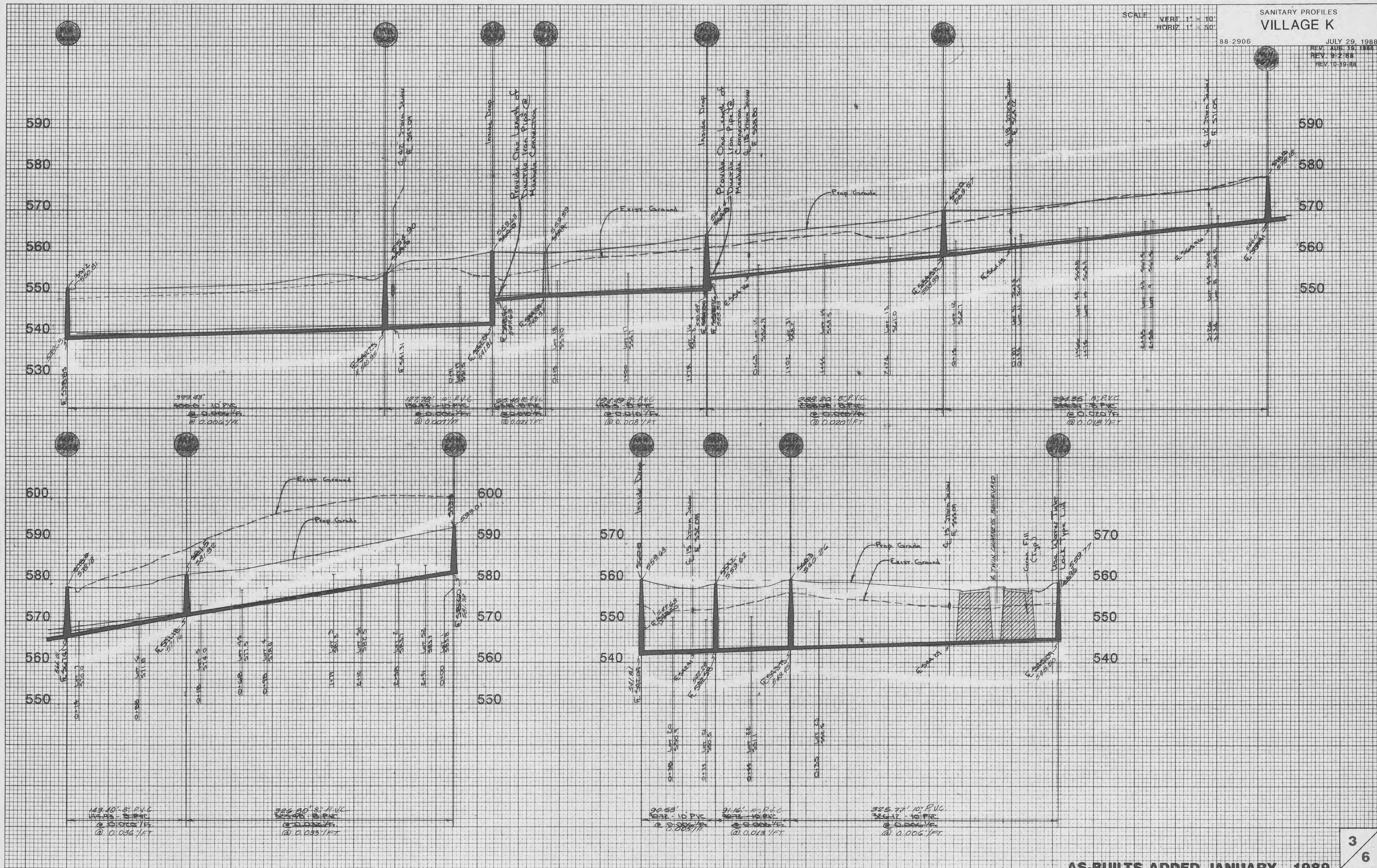
SCALE VERT 1" = 10'
 HORIZ 1" = 50'

SANITARY PROFILES
 VILLAGE K

88-2906 JULY 29, 1988
 REV. AUG 19, 1988
 REV. 9-2-88
 REV. 10-18-88

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

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

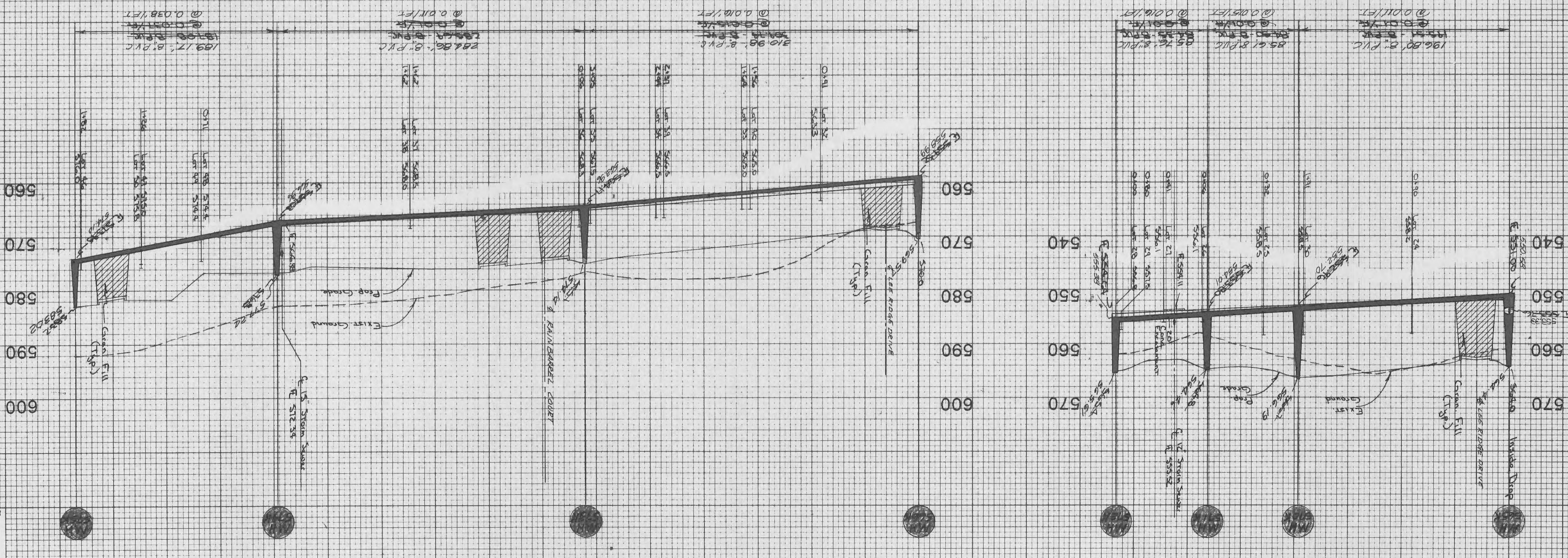


HIGHWAY FEDERAL AID SHEET
 PLATE 3-FULL CROSS SECTION-FULL LINE
 47 TELEPHONE
 PRINTED IN U.S.A.

AS-BUILTS ADDED JANUARY, 1989
 AS-BUILTS ADDED DECEMBER, 1988

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

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



HOKMAY FEDERAL AND SHEET
 W-123208E
 PLATE 3-FULL CROSS SECTION-FULL LINE
 PRINTED IN U.S.A.

AS-BUILTS ADDED JANUARY, 1989
 AS-BUILTS ADDED DECEMBER, 1988

4
 6

88-2906
 SANITARY PROFILES
 VILLAGE K
 SCALE: VERT. 1" = 10'
 HORIZ. 1" = 50'
 REV. AUG. 19, 1988
 REV. 10-19-88

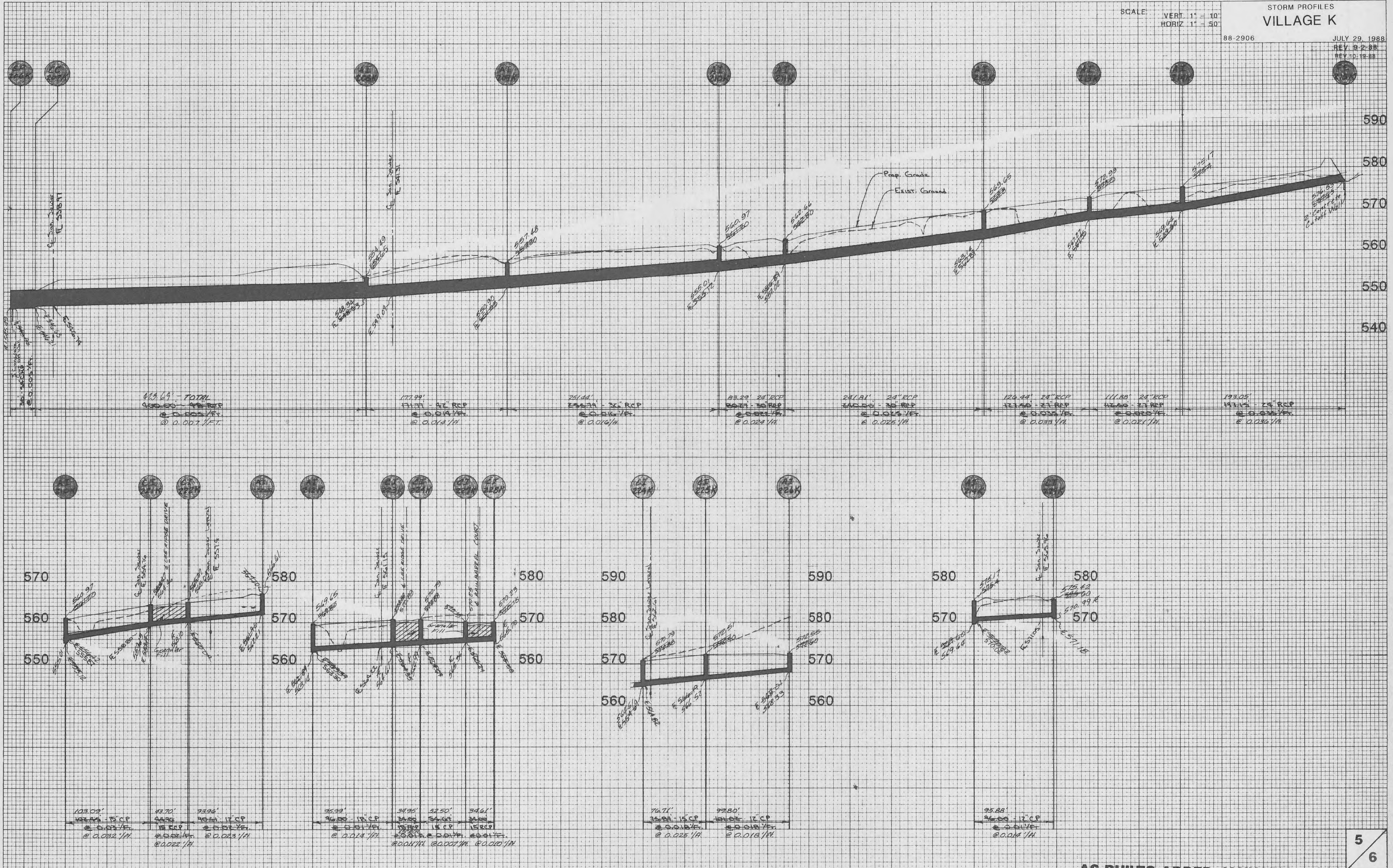
STORM PROFILES
VILLAGE K

88-2906
JULY 29, 1988
REV 9-2-88
REV 10-19-88

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

FINAL SURVEY PLOTTED NOTE BOOK NO. DATE

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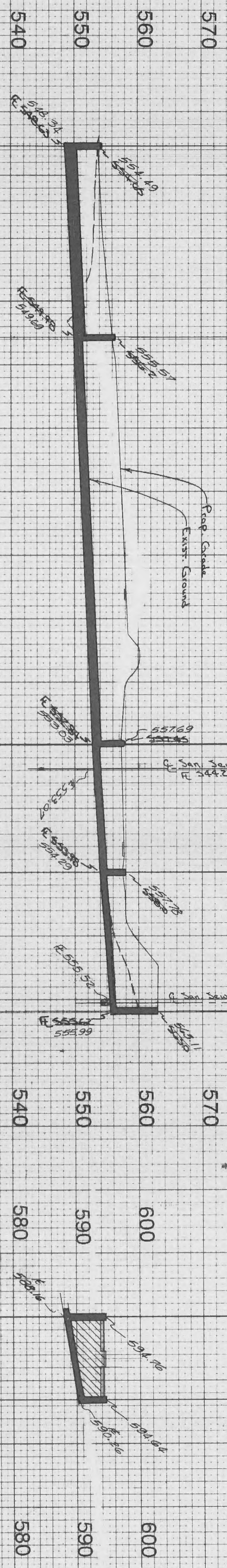


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AS-BUILTS ADDED DECEMBER, 1988

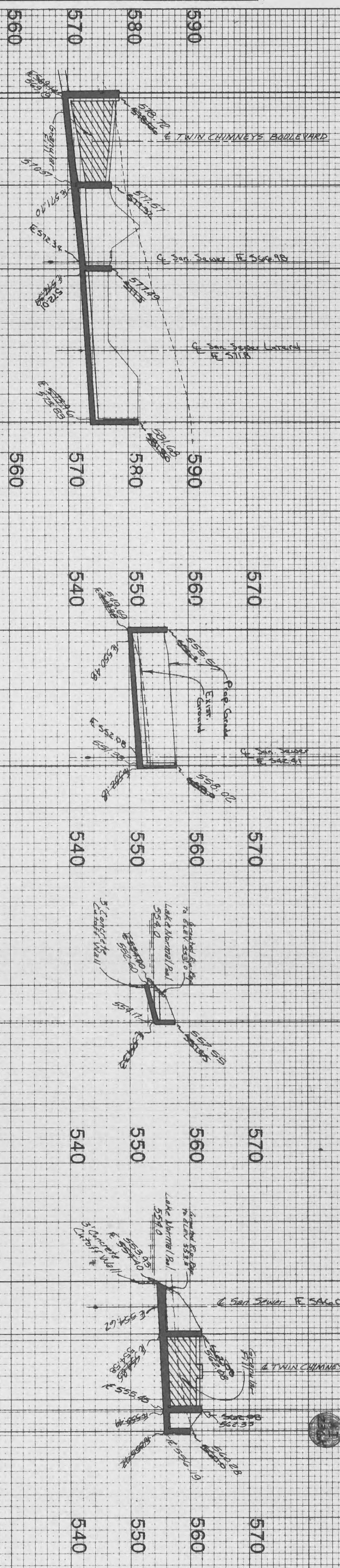
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STORM PROFILES
VILLAGE K

88-2906
JULY 29, 1988
SCALE: HERT. 1" = 50'
HORIZ. 1" = 50'



159.09 24.8 C.P.
3.683 17.1 R.C.P.
98.00' 15.1 C.P.
10.21' 10.6 C.P.
0.522 15.023 @ 0.002 1/FT



159.09 24.8 C.P.
3.683 17.1 R.C.P.
98.00' 15.1 C.P.
10.21' 10.6 C.P.
0.522 15.023 @ 0.002 1/FT

143.16 12.6 C.P.
1.525 15.1 R.C.P.
0.015 1/FT

143.16 12.6 C.P.
1.525 15.1 R.C.P.
0.015 1/FT

49.1 18.0 C.P.
1.5 R.C.P.
0.015 1/FT @ 0.015 1/FT

17.88 15.1 R.C.P.
0.043 1/FT

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

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

PLATE 3-FULL CROSS SECTION-FULL LINE

AS-BUILTS ADDED JANUARY, 1989
AS-BUILTS ADDED DECEMBER, 1988

6/6