

IMPROVEMENT PLANS

VILLAGES AT DARDENNE - PRAIRIE VILLAGE

A TRACT OF LAND BEING PART OF
 LOTS 1, 2 AND 3 OF THE JAMES CAMPBELL
 ESTATE AS RECORDED IN PLAT BOOK 3, PAGE 51,
 WITHIN U.S. SURVEY 3225, TOWNSHIP 46 NORTH, RANGE 3 EAST
 ST. CHARLES COUNTY, MISSOURI

PHASE TWO - 26 LOTS

(LOTS 1167-1173 & 1195-1213)

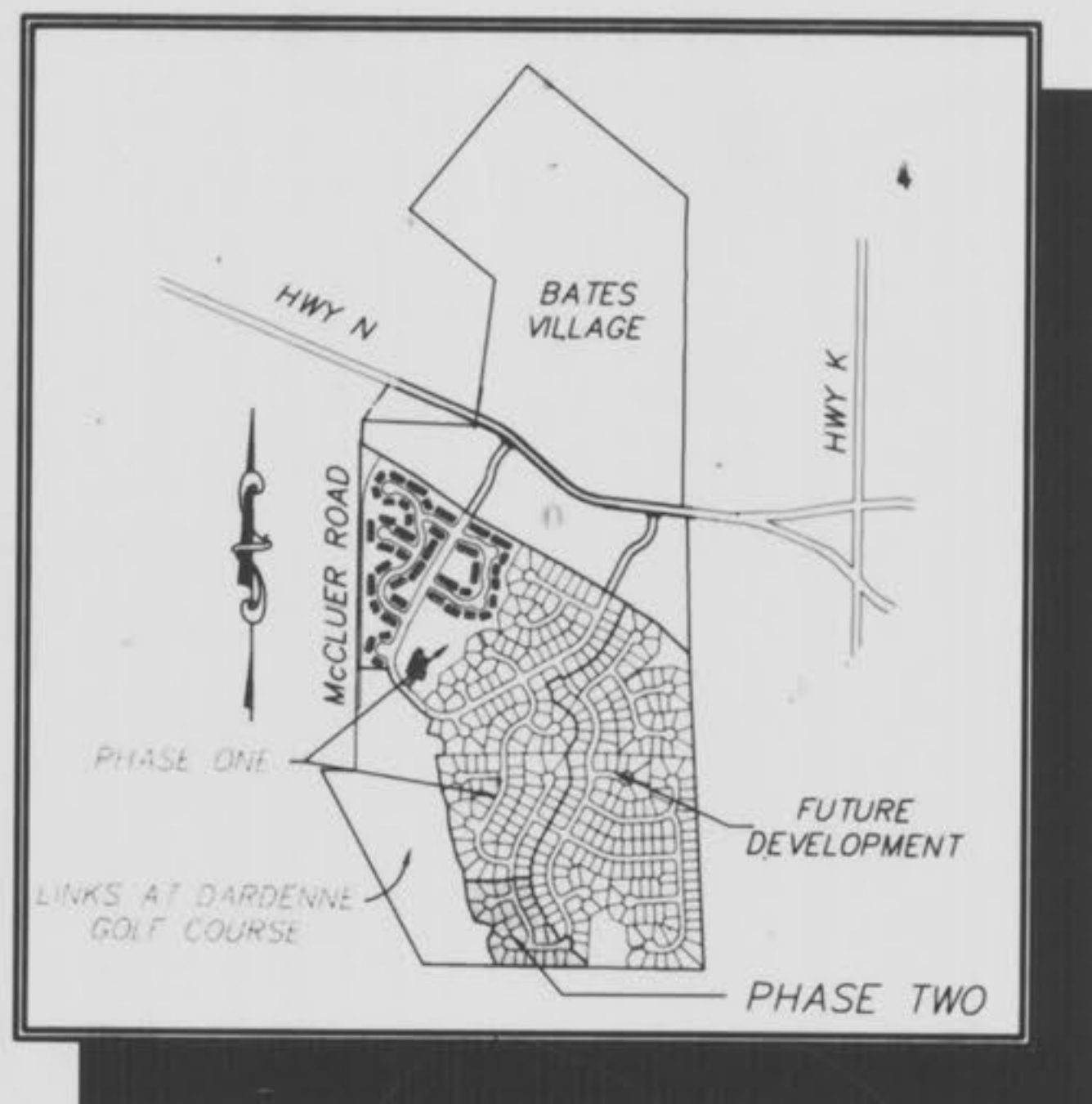
CITY OF O'FALLON GENERAL NOTES

- 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.
- 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.
- 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.
- All storm sewer pipe under pavement, regardless of size, shall be reinforced concrete pipe (ASTM C-76, Class III) unless noted otherwise in the plans.
- Property is located within the Flood Plain boundaries per FRM Map No. 29183C0239E and 29183C0430E, revised on August 2, 1996.
- All filled places under buildings, proposed sanitary and storm sewer lines, and/or paved areas including trench backfills shall be compacted to 90% of maximum density as determined by the "Modified A.S.H.T.O. T-180 Compaction Test" (ASTM D-1557) unless otherwise specified by the local governing authority specifications. All tests will be verified by a soils engineer.
- All earthen filled places within State, County, or City roads (Highways) shall be compacted to 95% of maximum density as determined by the "Standard Proctor Test A.S.H.T.O. T-99" (ASTM D-698) unless otherwise specified by local governing authority specifications. All tests will be verified by a soils engineer.
- All storm and sanitary trench backfills shall be water jetted. Granular fill will be used under paved areas.
- 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.
- No area shall be cleared without the 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.
- 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.
- All manhole and curb inlet tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor. At the time of construction start-up of the sewer lines, all curb and grate inlets will be face staked. If normal face stakes fail in line with sewer construction, the Engineer will set three 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.
- The minimum vertical distance from the low point of the basement to the route of a sanitary sewer of 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').
- 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.R.W.A. specification C-106 and/or C-108. The cast iron fittings shall conform to A.R.W.A. specification C-110. All rubber gasket joints for water cast iron pressure pipe and fittings shall conform to A.R.W.A. specification C-111.

- All water hydrants and valves shall be cast iron and installed in accordance with plans and details.
- All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
- All PVC water pipe shall have a minimum pressure rating of PR-200 or SDR-21.
- All PVC sanitary sewer pipe shall 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 springs of pipe. Immediate backfill over pipe shall consist of same size "clean" or "minus" stone from springs of pipe to 6" above the top of pipe.
- 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.
- All streets must meet the specifications and installation requirements of the City of O'Fallon.
- All sanitary manholes top shall be set 0.2' higher than the proposed ground except in pavement areas.
- All sanitary manholes shall have a 31 mil thick coat of coal tar pitch waterproofing. See note #32 #42.
- All sanitary service lines shall have a 6" diameter for Villas and a 4" diameter for single-family developments.
- Manhole frame and cover shall be Clay and Bailey No. 2008 or Neenah R-1736 or Dexter 1315 or approved equal.
- A drop of 0.2 feet is required through each sanitary manhole. SEE NOTE #45.
- The City of O'Fallon shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspection.
- Brick shall not be used on manholes.
- Waterproofing: Waterproofing will be required on the exterior of all manholes. The bitumen shall consist of two coats of asphalt, coal-tar pitch, or a coating meeting American Society for Testing and Materials (ASTM) D-449. Coal-tar pitch shall conform to the requirements of ASTM D-450. Coating shall be 31 mil thickness.
- 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.
- As needed, siltation fence shall be installed as a protective barrier for trees to remain.
- This tract is in or served by:
 - Water - St. Charles County P.R.S.D. No. 2
 - Electric - Union Electric
 - Telephone - G.T.E. Missouri
 - Sanitary Sewers - Duckett Creek Sanitary District
 - Gas - St. Charles Gas
 - Fire Protection - O'Fallon Fire Protection District
 - School District - Fort Zumwalt
 - Mail Service - O'Fallon
- Lot Data:
 - Total Number of Lots - 337
 - Minimum Lot Size - 9,000 Sq. Ft.
 - Minimum Lot Width at Building Line - 75 Ft.
- Yard and Setback Requirements:
 - Front - 25 Feet
 - Side - 6 Feet
 - Rear - 25 Feet
- Villa Data:
 - Total Number of Villas - 115
- Distance between Villa buildings:
 - Front to Front - 50 feet
 - Back to Back - 50 feet
 - Side to Side - 20 feet
 - Front to Side - 35 feet
 - Back to Side - 35 feet
 - Corner to Corner - 15 feet

"AS-BUILTS"

LOCATION MAP



- The contractor will be responsible to insure that all areas within the project limits that have been disturbed by the grading process shall be seeded and mulched within ninety (90) days of completion.
- The contractor will be responsible for the removal and disposal of all existing improvements, except those designated to be left in place, from within the limits of the construction area.
- TOTAL DEVELOPMENT LANDSCAPING REQUIREMENTS:
 - Total tree coverage: 6.81 Acres
 - Total tree coverage preserved: 5.45 Acres
 - Required tree coverage preserved: 6.81 Acres x 0.20 = 1.36 Acres
 - Excess tree coverage preserved: 5.45 Acres - 1.36 Acres = 4.09 Acres
 - Excess trees preserved: (All preserved trees are Type IV) 4.09 Acres x 15 Trees/Acre = 61 Trees
 - Required street tree planting: 48,144 in. ft. frontage x 50 in. ft./tree = 963 Trees
 - Reduced street tree requirement: 963 trees - 61 trees = 902 Trees
- The Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction for coordination and inspection.
- All exterior sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri Department of Natural Resource Specification 10 CRS-8.120(X)(1).
- All pipes shall have positive drainage through manholes. No flat base structures are allowed.
- All creek crossings shall be grouted rip-rap as directed by District Inspectors. (All grout shall be high slump ready-mix concrete).
- All streets shall be paved with a paving machine.
- Pre-manufactured adapters shall be used at all PVC to D.L.P. connections. Rubber boot / Mission type couplings will not be allowed.

This is to certify to Duckett Creek Sanitary Dist. that these "As-Built" San./Storm plans are based on actual field surveys conducted during June, 1998 and the results are shown here on.

by Pickett Ray & Silver

Daniel Ehlmann
 6-24-98

DRAWING INDEX

Sheet	Description
1	COVER SHEET
2	SITE PLAN
3	GRADING PLAN
4-5	STREET PROFILES
6-7 3-4	SANITARY SEWER PROFILES
8-9 5-6	STORM SEWER PROFILES
10	DRAINAGE AREA MAPS
11 7	WATER LAYOUT PLAN
12-16	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
Water Line & Size	Light Standard	V.C.P.	Vitrified Clay Pipe
Existing water line	Double Water Meter Setting	C.O.	Clean Out
Tee & Valve	Single Water Meter Setting	V.T.	Vent Trap
Hydrant	C.I.	S.C.I.	Skewed Curb Inlet
Cap	D.C.I.	G.I.	Grate Inlet
18 Lot or Building Number	A.I.	D.A.I.	Double Area Inlet
Existing Fence Line	C.C.	F.E.	Flared End Section
Existing Tree Line	E.P.	E.D.	Energy Dissipator
Street Sign	M.H.	M.H.	Manhole
Existing Contour	C.P.	C.P.	Concrete Pipe
Proposed Contour			
Grouted Rip-Rap			
End of Lateral			
Asphalt Pavement			
Concrete Pavement			

SITE BENCHMARK

BM. #1
 "O" IN OPEN ON FIRE HYDRANT ON WEST SIDE OF HENNING ROAD AT 250' NORTH OF S.E. CORNER OF RAUP TRACT. ELEV. = 501.32 (BASED ON F.I.R.M. B.M. RM. #57 ELEV. = 486.44)

REVISIONS

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 authorized by the seal, signature and date hereunder attached. Responsibility is disclaimed for all other engineering plans included in the project and specifically includes, but is not limited to, revisions after this date unless reauthorized.



PICKETT, RAY & SILVER, INC.
 Signature: [Signature] Date: [Date]

DEVELOPER

WHITTAKER
 CONSTRUCTION, INCORPORATED
 355A MID RIVERS MALL DRIVE
 ST. PETERS, MO. 63376
 (314)970-1511

"AS-BUILTS"

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DRAWN	E.J.S.	DATE	DEC. 1997	1
CHECKED	D.H.D.	DATE	DEC. 1997	
FIELD BOOK	595	PROJECT #	95-080C	10
		JOB ORDER #	38059	

P-1 = PHASE ONE SEWERS

THE VILLAGES AT DARDENNE
 PRAIRIE VILLAGE PHASE TWO
 SANITARY SEWER PROFILES
 DECEMBER, 1997

Rev. 2-24-97
 REVISED
 REVISED
 7-16-97
 8-5-97

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

DATE
 BY
 CHECKED
 FINAL SURVEY
 PLOTTED
 NOTE BOOK
 AREAS CHECKED

DATE
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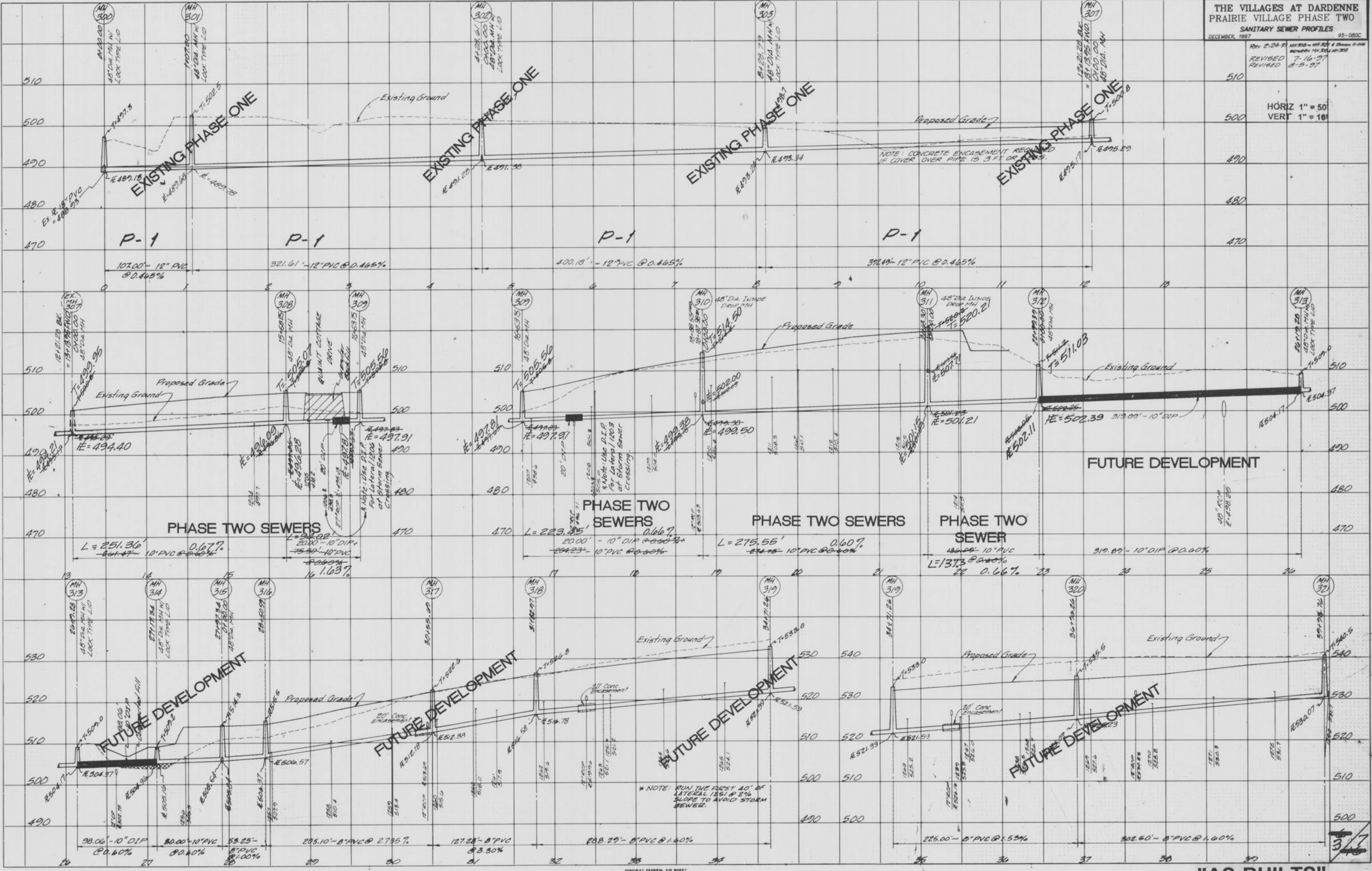


PLATE 3-FULL CROSS SECTION LINE & DOT
 PRINTED IN U.S.A.

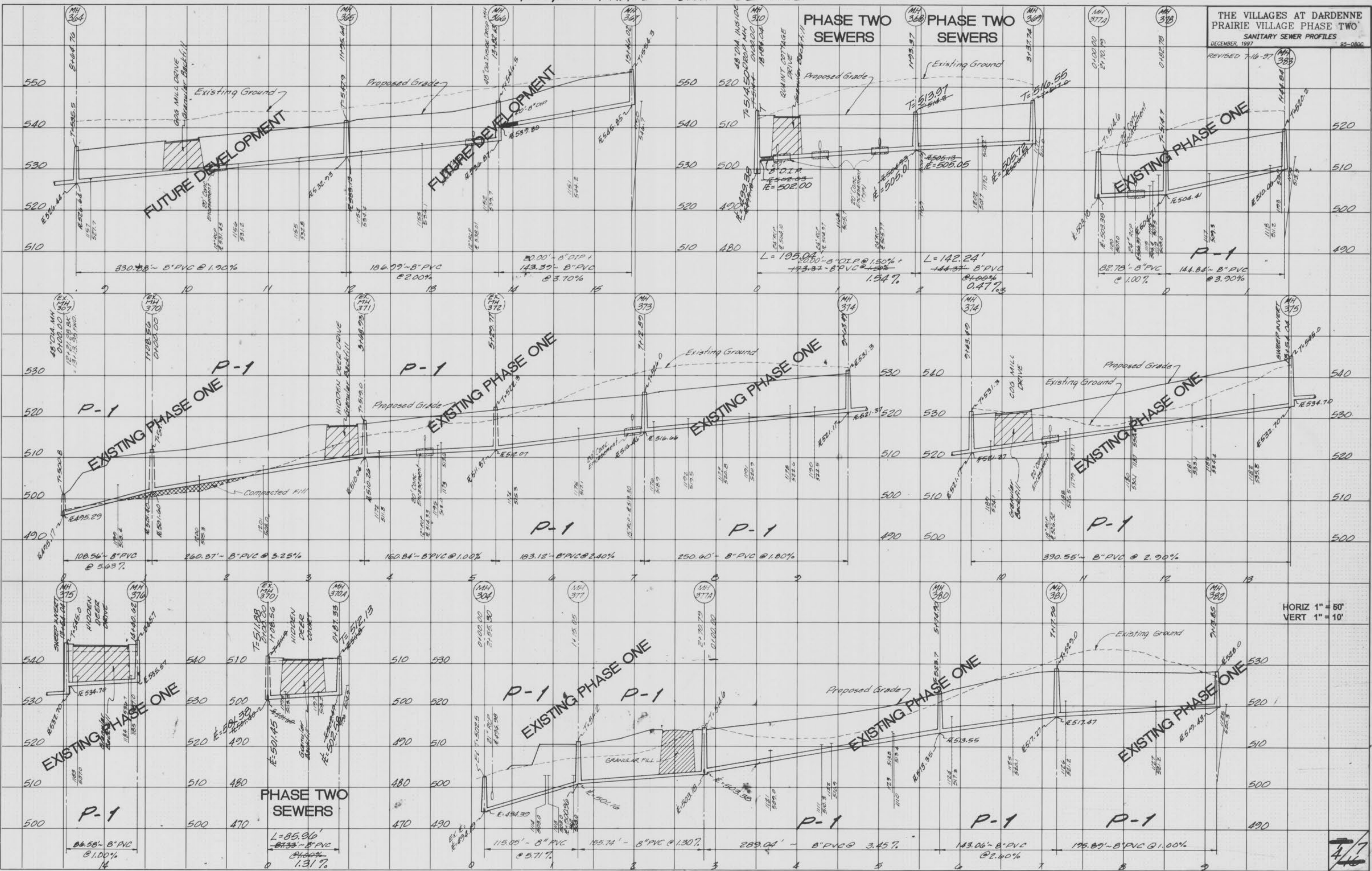
"AS-BUILTS"

P-1 = PHASE ONE SEWERS

THE VILLAGES AT DARDENNE
PRAIRIE VILLAGE PHASE TWO
SANITARY SEWER PROFILES
DECEMBER, 1997
REVISED 7-16-97

DATE: _____
BY: _____
CHECKED: _____
FINAL SURVEY: _____
NOTE BOOK: _____
NO. _____

DATE: _____
BY: _____
CHECKED: _____
ORIGINAL SURVEY: _____
NOTE BOOK: _____
NO. _____



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

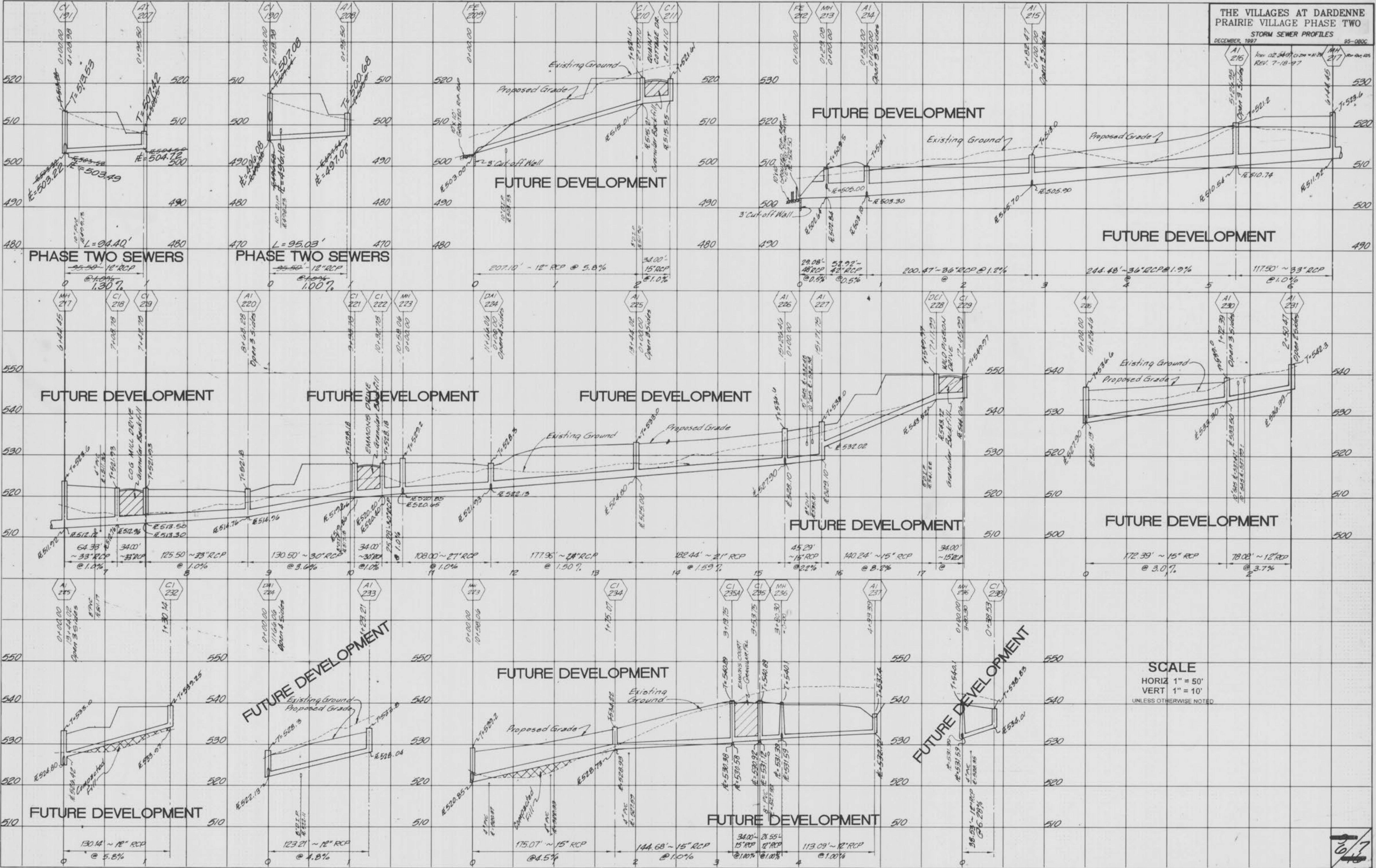
7/7
4/16

PLATE 3-FULL CROSS SECTION LINE & DOT
NATIONAL INSTRUMENTS
PRINTED IN U.S.A.

"AS-BUILTS"

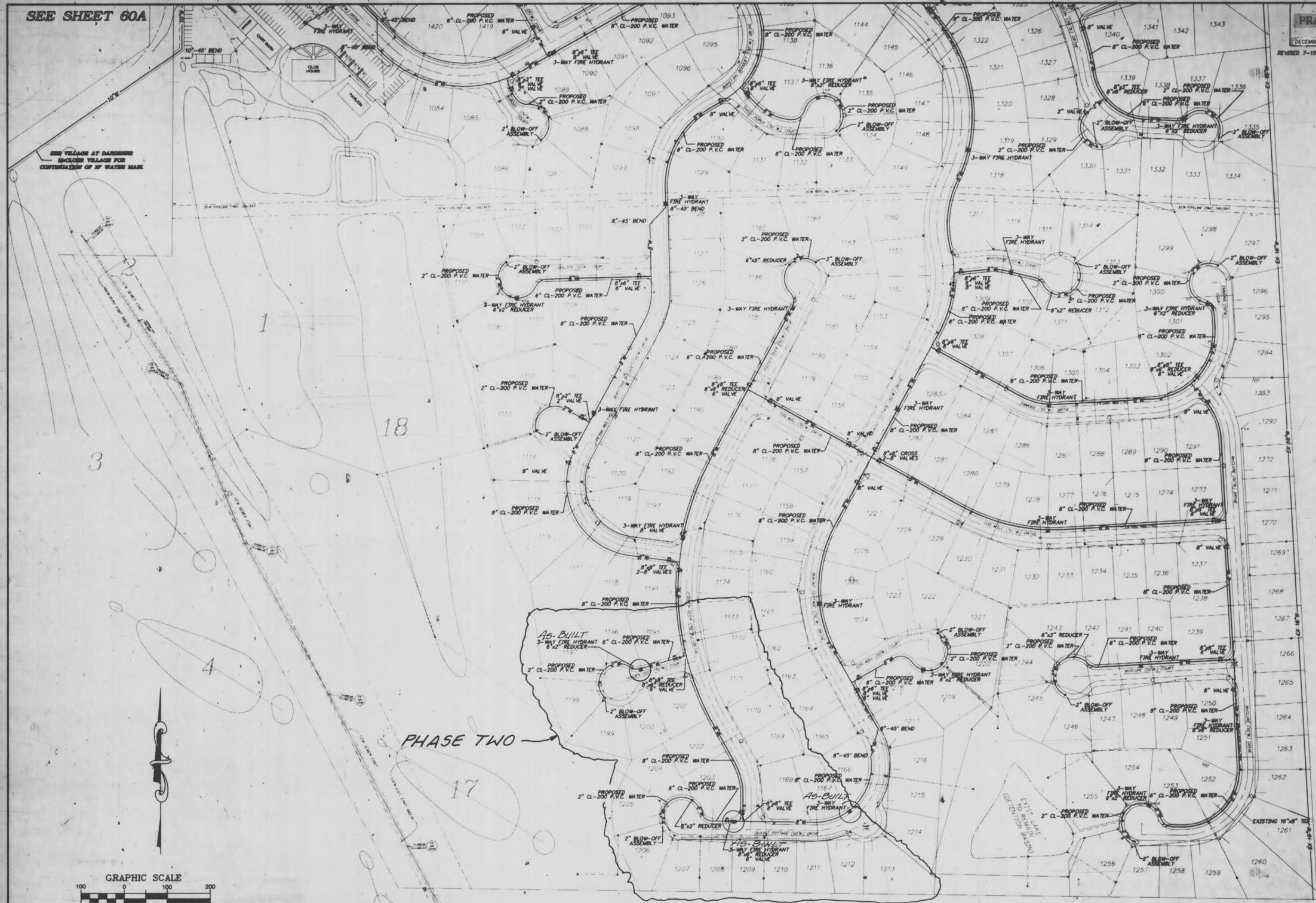
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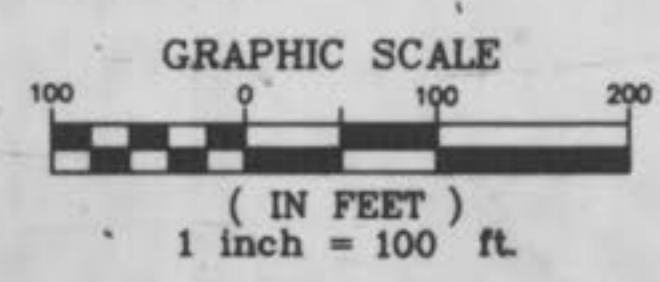


SCALE
 HORIZ 1" = 50'
 VERT 1" = 10'
 UNLESS OTHERWISE NOTED

SEE SHEET 60A



PHASE TWO



- NOTES:**
1. ALL WATER MAINS WILL HAVE A MINIMUM OF 45" (0.5') OF COVER OVER PIPE.
 2. ALL WATER MAINS WILL BE CLASS 200 P.V.C. PIPE.
 3. ALL FIRE HYDRANTS WILL BE LOCATED 6 FEET FROM BACK OF CURB.
 4. BLOW-OFF ASSEMBLY'S TO BE LOCATED 6' PAST LAST PROPERTY LINE.
 5. ALL FIRE HYDRANT HOSE CONNECTIONS MUST FACE STREET.
 6. ALL FIRE HYDRANTS MUST BE INSTALLED WITH AN AUXILIARY VALVE.

"AS-BUILTS"