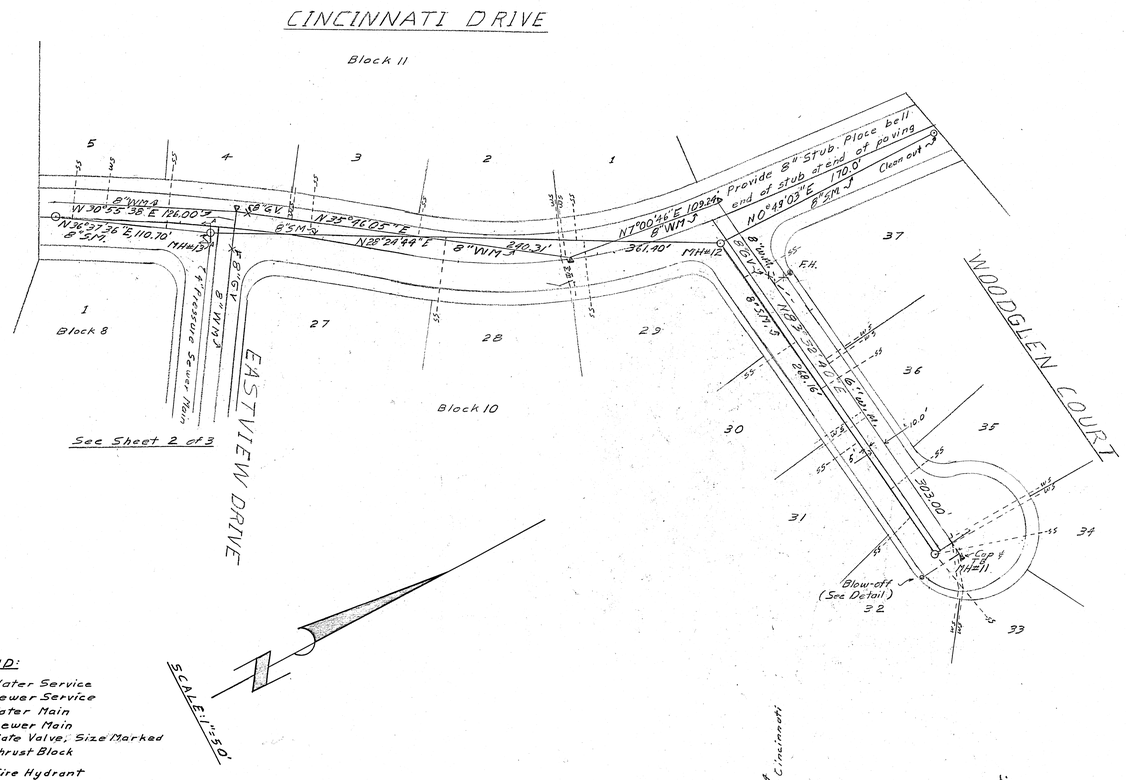
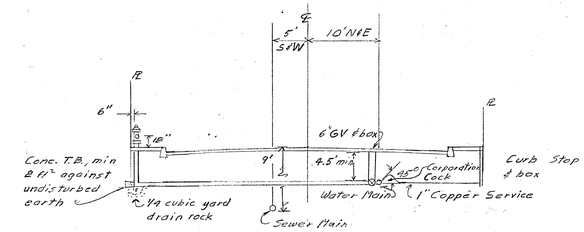




Typical Section

WATER SUPPLIER CERTIFICATE

Whitworth Water District No. 2 has approved this water plan for Gleneden Third Addition. This water plan is in full conformance with our requirements and will satisfy our needs in providing an adequate water system and facilities for domestic and fire protection purposes to all lots in the above named plat.
Appropriate contractual arrangements have been made with Dwain E. Nelson, and Lois D. Nelson, husband and wife, and Union Service Corporation, for construction of the water system in accordance with this approved water plan. Said contractual arrangements include a time schedule acceptable to Whitworth Water District No. 2 and commit Dwain E Nelson, Lois E. Nelson, and Union Service Coporation to installation of inspected service lines to each lot prior to any application for building permits for such lots.

Claude Earl Wells, Superintendent

FIRE DISTRICT CERTIFICATE

Fire District No. 9 has approved this water plan for Gleneden Third Addition. This water plan is in conformance with our requirements and will satisfy our needs in providing an adequate water system and facilities for fire protection purposes to all lots in the above named plat.

Roy Sherman, Chief

STATE DEPARTMENT OF HEALTH CERTIFICATE

The Washington State Department of Social and Health Services has approved this water plan as having met all applicable State requirements.

Tom Justus

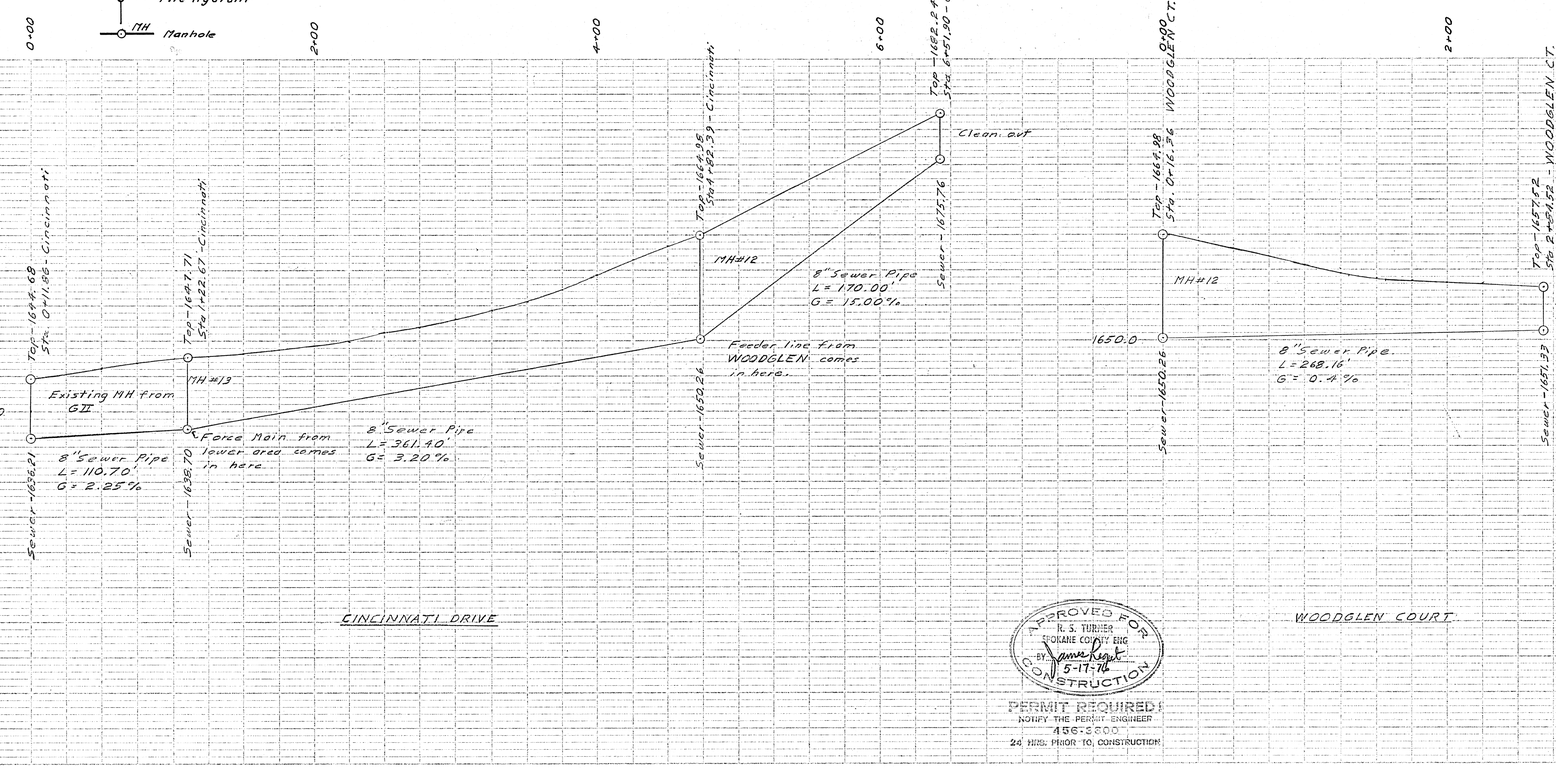
J. PAUL REANEY — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR

REVISIONS		
Change 6" Wat. to 8"	3/5/76	Gleneden III
Blow-off added	3/30/76	Cincinnati Drive
Change Sewer Per County	4/14/76	Water and Sewer Plans
Lots Shifted in C.D.S	4/16/76	

Date Jan. 7, 1976
Drawn Randall C.
Checked
Plot Book
SCALE Horizontal 1"=50' Vertical 1"=10'

CONNER, WATER & REANEY, INC. CIVIL ENGINEERS & LAND SURVEYORS PUBLIC NAVIGATION DIST. PH. NO 74-1585 SPOKANE, WASHINGTON 99218

Project No. 75183
Sht 1 of 3



APPROVED FOR CONSTRUCTION
R. S. TURNER
SPOKANE COUNTY ENG
BY James Hogan
5-17-76

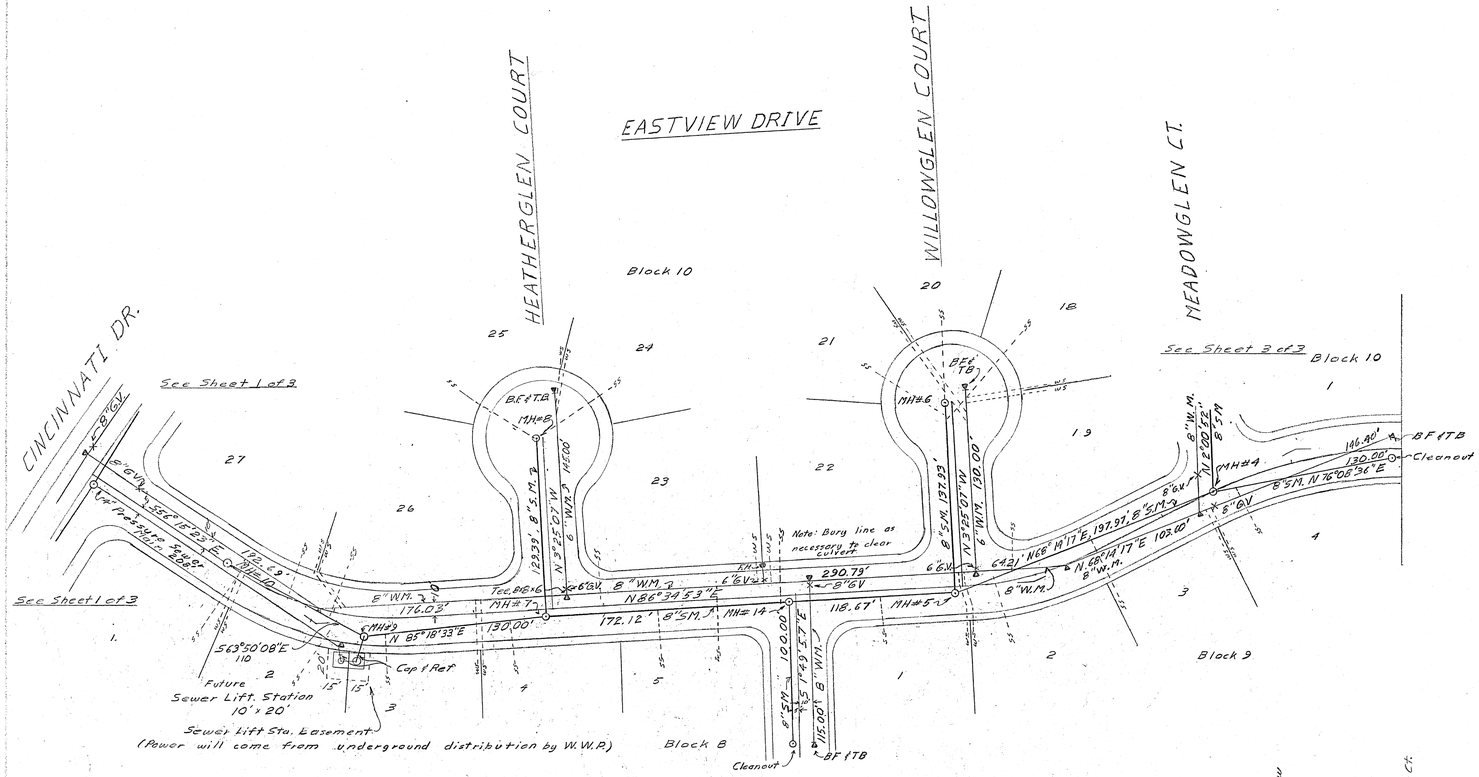
PERMIT REQUIRED!
NOTIFY THE PERMIT ENGINEER
456-3600
24 HRS. PRIOR TO CONSTRUCTION

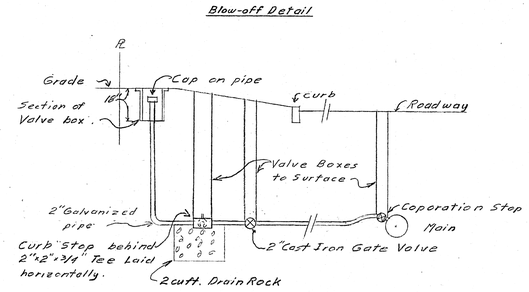
SEWER NOTES:

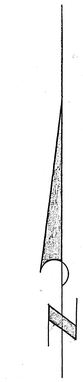
1) Construction Specifications shall conform to the "Standard Specifications For Municipal Public Works Construction", latest edition, prepaired by Washington State Chapter, American Public Works Association.
2) All gravity sewer mains, laterals, & services shall conform to ASTM Specifications
3) Trench excavation and backfill shall be "Class A".
4) Pipe bedding shall be "Class D".
5) Backfill shall be compacted to 95% maximum density.
6) Contractor shall keep accurate record of sewer lateral location & shall leave ends exposed for determination of elevation before covering on all services. Services shall extend 5' into property
7) Contractor shall provide 2"4 risers at ends of all water and sewer services. Paint water service markers blue and sewer service markers yellow.
8) 4" Pressure Sewer Main is NSF approved Class 160 P.V.C. Gasketing shall be flexable and line shall be hydrostatically tested to 100psi. for 30min. Contractor shall co-ordinate testing and inspection with County Utilities Department.
9) Engineer shall provide certified, reproducable "as built" drawings.
10) Contractor shall be responsible for keeping the Gleneden Second Addition sanitary sewer lines clear of water and debris.

WATER NOTES

1) All water service installation and Fire Hydrant instalation shall conform to Whitworth Water District Specifications currently in force at time of construction.
2) Contractor shall co-ordinate testing, inspection, acceptance, and "As-built requirements with Whitworth Water District.

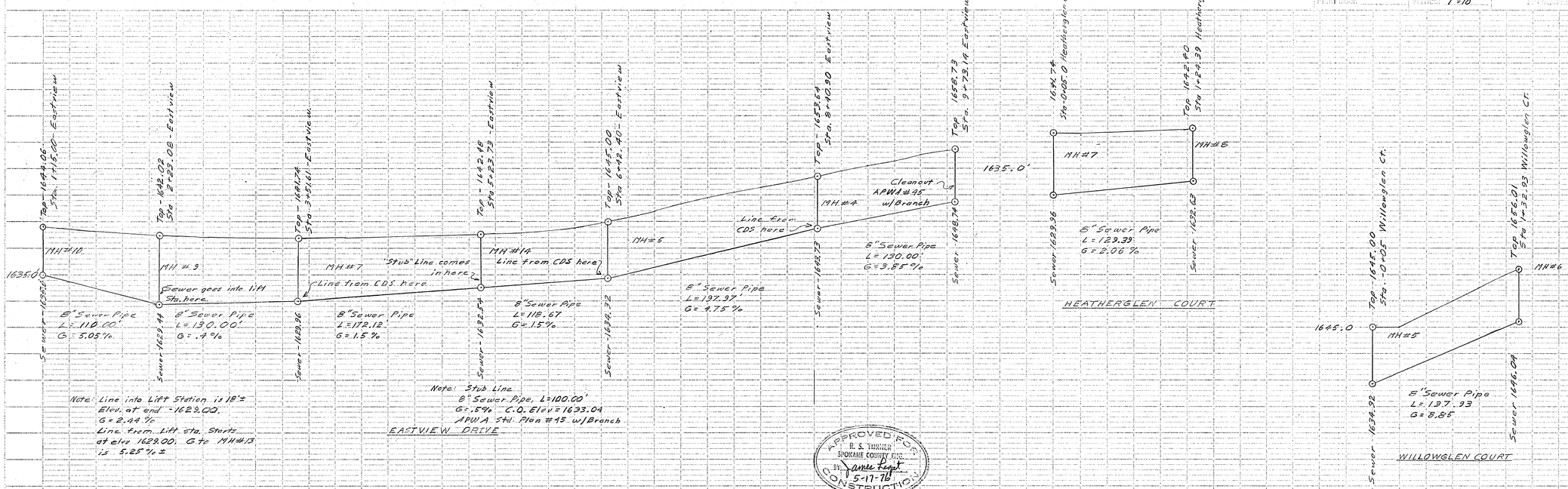






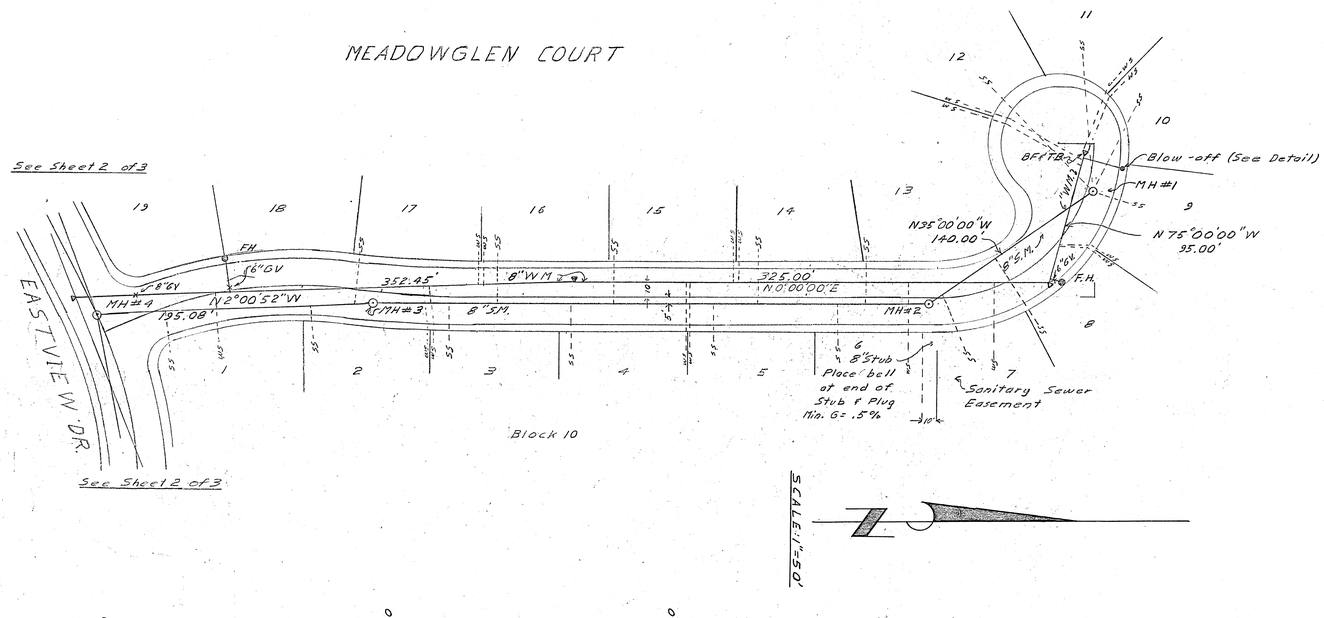
J. PAUL RAMER
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR

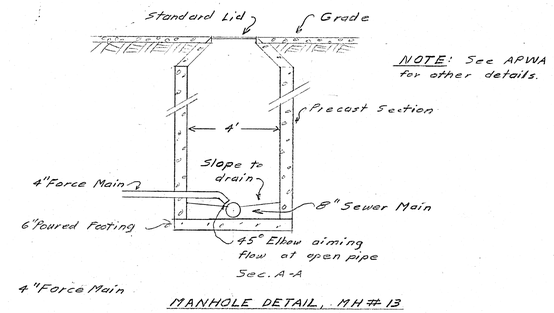
Raised road grade	6/11/76	
REVISIONS		Gleneden III Eastview Drive
Change 6" W.M. to 8"	3/3/76	
Blow-off Valve	3/31/76	Water and Sewer Plans
Changed Sewer Per County	4/15/76	
Stub road put in	5/4/76	
Date Jan 9, 1975	SCALE	SARGENT, RAMER & ASSOC., INC. CIVIL ENGINEERS & LAND SURVEYORS N.10115 NEWPORT HWY. PH: 1217-1658 SPOKANE, WASHINGTON 99218
Drawn Randall C.	Horizontal 1"=50'	Project No. 75183
Checked		
Field Book	Vertical 1"=10'	Sht 2 of 3



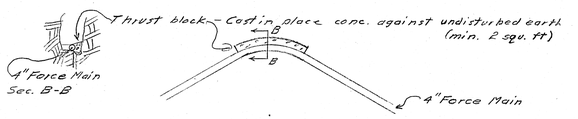
APPROVED FOR CONSTRUCTION
R. S. TURNER
SPOKANE COUNTY ENG.
BY James Legat
5-17-76

PERMIT REQUIRED!
NOTIFY THE PERMIT ENGINEER
456-3600
24 HRS. PRIOR TO CONSTRUCTION





MANHOLE DETAIL, MH # 13



THRUST BLOCK
4" Sewer Force Main
(No Scale)

J. PAUL RAMER
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER AND LAND SURVEYOR

REVISIONS	
Change 6" W.M. to 8"	3/15/76
Blow-off added	3/24/76
Change Sewer per County	4/14/76
Sewer & Road/Water Invert	4/21/76

Gleneden III

Water and Sewer Plans

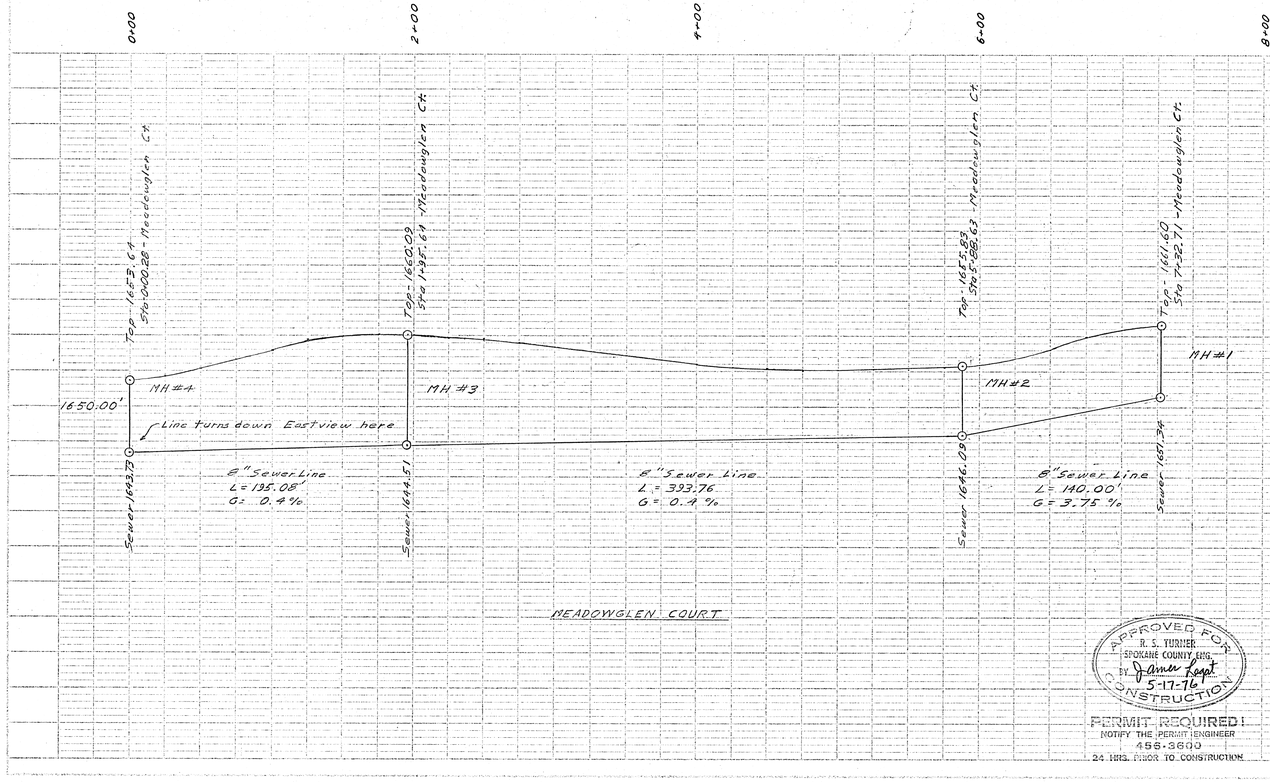
Date: Jan. 19, 1976
Drawn: Randall C.
Checked:
Field Book:

SCALE
Horizontal 1" = 50'
Vertical 1" = 10'

RAMER, RAMER & ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
1004 PAUL BUNYAN BLVD. ALDERWOOD
MOKUM, WASHINGTON 98291

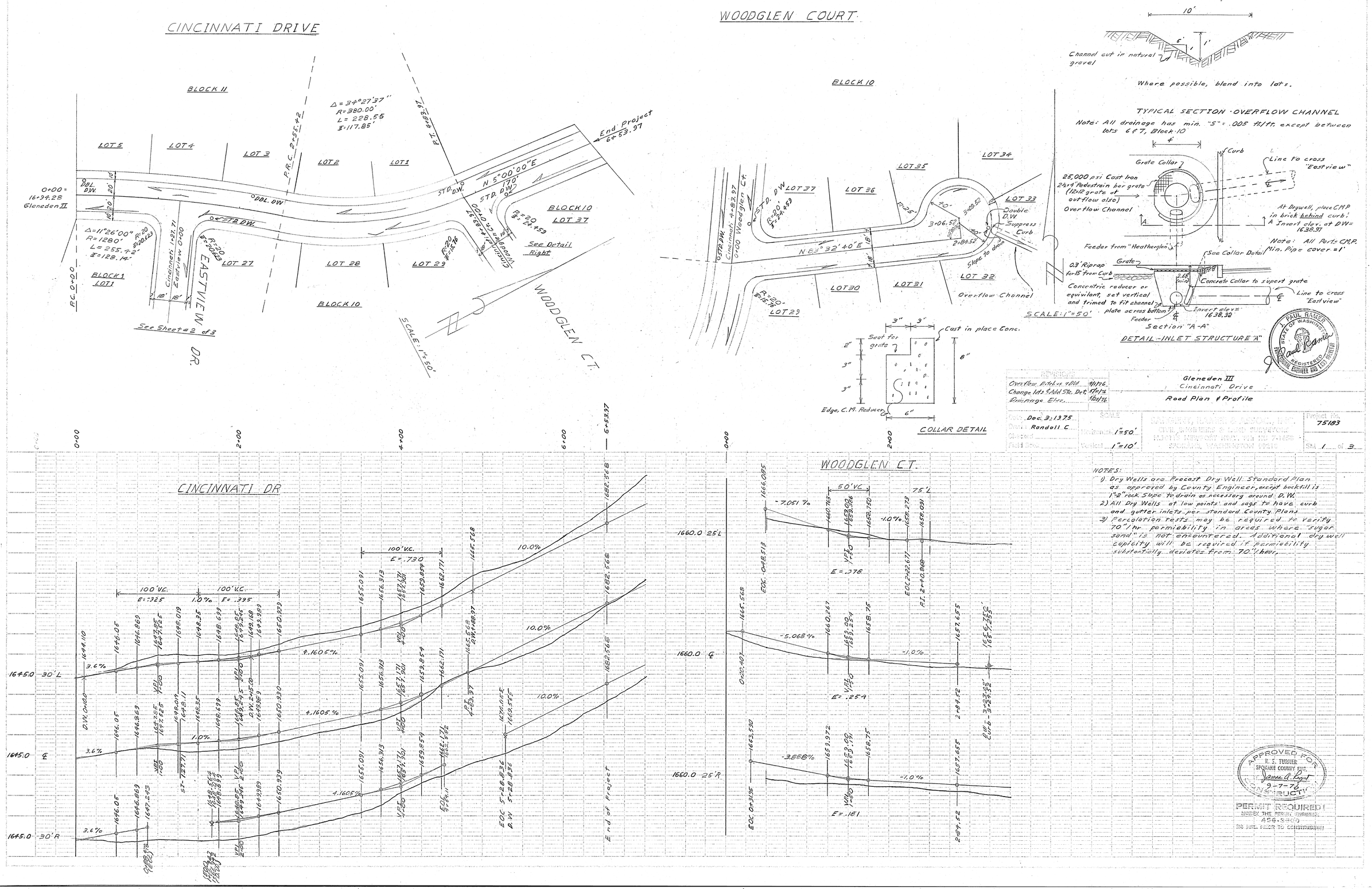
Project No. 75183

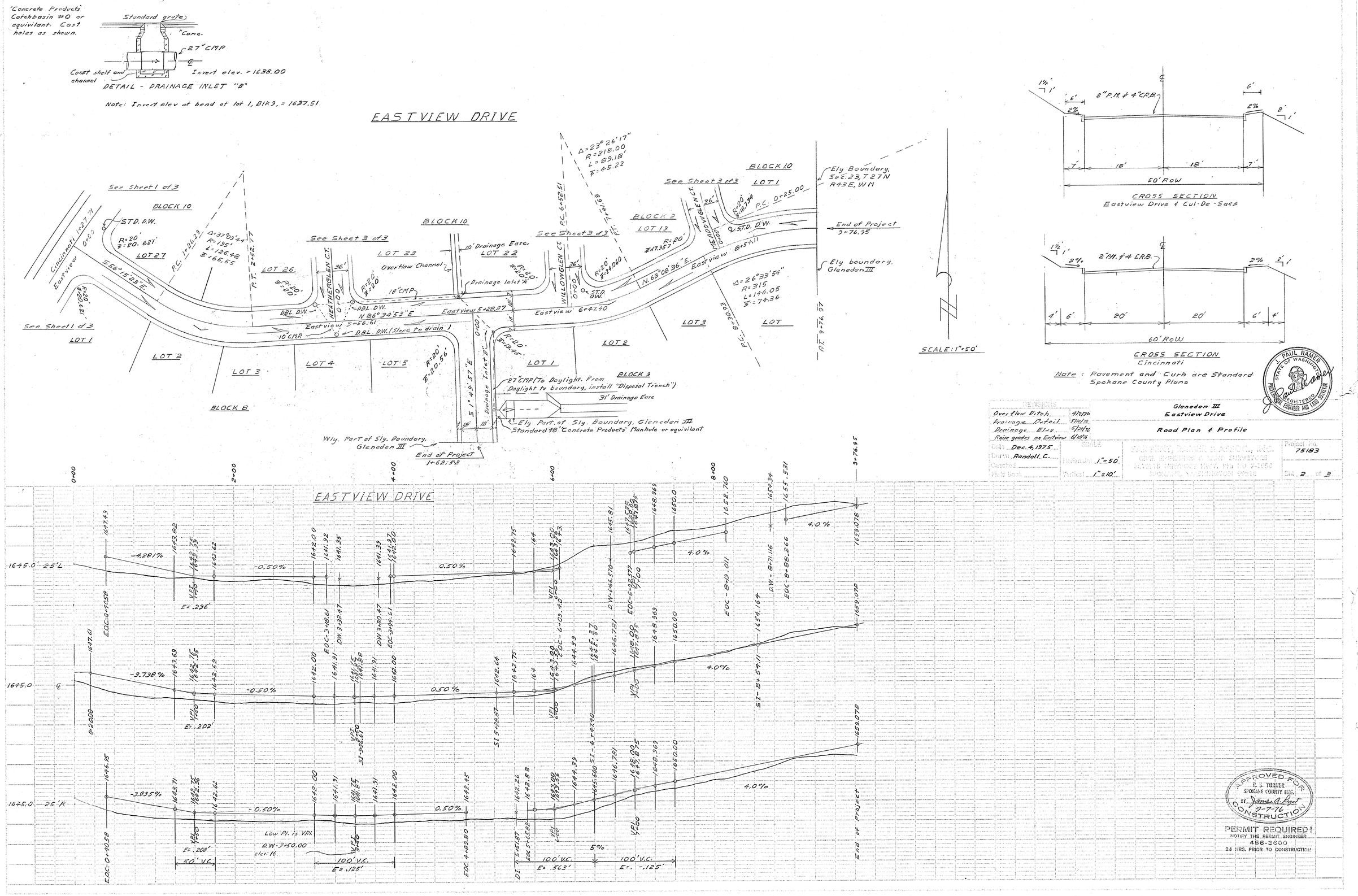
SH. 3 of 3



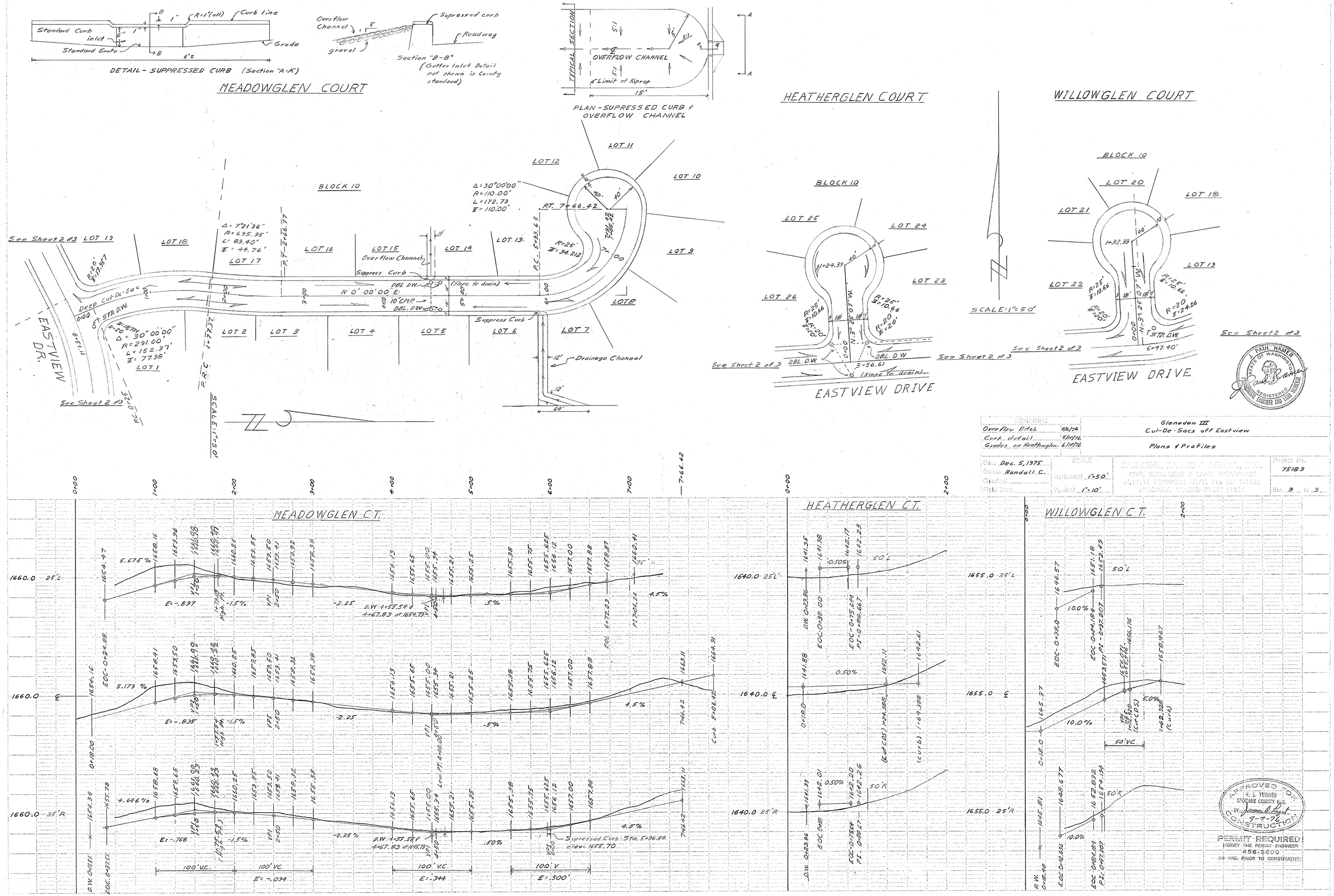
APPROVED FOR CONSTRUCTION
R. S. TURNER
SPOKANE COUNTY ENG.
BY James Leopt
5-17-76

PERMIT REQUIRED!
NOTIFY THE PERMIT ENGINEER
456-3600
24 HRS. PRIOR TO CONSTRUCTION


CINCINNATI DRIVE
WOODGLEN COURT
BLOCK 11
BLOCK 10
LOT 5
LOT 4
LOT 3
LOT 2
LOT 1
LOT 27
LOT 28
LOT 29
LOT 37
LOT 36
LOT 35
LOT 34
LOT 33
LOT 32
LOT 31
LOT 30
LOT 29
BLOCK 1
LOT 1
Δ = 34°27'37"
R = 380.00'
L = 228.55
Σ = 117.85'
End Project 6+53.97
N 5°00'00"E
170'
N 83°32'40"E
0+00 = 16+94.28 Gleneden II
Δ = 11°26'00"
R = 1280'
L = 255.42'
Σ = 128.14'
See Detail Right
See Sheet #2 of 3
EASTVIEW DR.
WOODGLEN CT.
SCALE: 1" = 50'
Cincinnati 1+27.71 Eastview 0+00
Cincinnati 4+83.97 0+00 Woodglen Ct.
Double D.W.
Suppress Curb
Slope to drain
Overflow Channel
Channel cut in natural gravel
Where possible, blend into lots.
TYPICAL SECTION - OVERFLOW CHANNEL
Note: All drainage has min. "S" = .005 ft/ft. except between lots 6 & 7, Block 10
Grate Collar
Curb
Line to cross "Eastview"
25,000 psi Cast Iron 2½x4" Pedestrain bar grate (12x12 grate at outflow also)
Overflow Channel
At Drywell, place CMP in brick behind curb; Invert elev. at DW = 1638.97
Note: All Parts CMP. Min. Pipe cover = 1'
Feeder from "Heatherglen"
See Collar Detail
0.3' Riprap for 15' from Curb
Grate
Concrete Collar to support grate
Concentric reducer or equivalent, set vertical and trimed to fit channel plate across bottom
Line to cross "Eastview"
Invert elev = 1638.32
Feeder
Section "A-A"
DETAIL - INLET STRUCTURE "A"
Cast in place Conc.
Seat for grate
Edge, C.M. Reducer
COLLAR DETAIL
J. PAUL RAMER
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
Gleneden III
Cincinnati Drive
Road Plan & Profile
Date: Dec. 3, 1975
Drawn: Randall C.
Checked:
Field Book:
Horizontal: 1" = 50'
Vertical: 1" = 10'
SANGERY, RAMER & ASSOC., INC.
CIVIL ENGINEERS & LAND SURVEYORS
SPOKANE, WASHINGTON 99210
Project No. 75183
Sht 1 of 3
CINCINNATI DR
WOODGLEN CT.
100' V.C.
E = .325
E = .395
E = .730
E = .378
E = .254
E = .181
1645.0 30' L
1645.0 ℄
1645.0 30' R
1660.0 25' L
1660.0 ℄
1660.0 25' R
End of Project
NOTES:
1) Dry Wells are Precast Dry Well Standard Plan as approved by County Engineer, except backfill is 1"-2" rock. Slope to drain as necessary around D.W.
2) All Dry Wells at low points and sags to have curb and gutter inlets per standard County Plans
3) Percolation tests may be required to verify 70"/hr permiability in areas where "sugar sand" is not encountered. Additional dry well capicity will be required if permiability substantially deviates from 70"/hour.
APPROVED FOR CONSTRUCTION
R. S. TURNER
SPOKANE COUNTY ENG.
9-7-76
PERMIT REQUIRED!
NOTIFY THE PERMIT ENGINEER
456-3600
NO MFG. PRIOR TO CONSTRUCTION



'Concrete Products' Catchbasin #0 or equivilant. Cast holes as shown.
Standard grate
"Conc.
27" CMP
Const shelf and channel
Invert elev. = 1638.00
DETAIL - DRAINAGE INLET "B"
Note: Invert elev at bend at lot 1, Blk 9, = 1637.51
EASTVIEW DRIVE
See Sheet 1 of 3
BLOCK 10
STD. D.W.
LOT 27
LOT 26
LOT 23
LOT 22
LOT 19
LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
BLOCK 8
BLOCK 9
See Sheet 3 of 3
Overflow Channel
10' Drainage Ease.
Drainage Inlet "A"
Drainage Inlet "B"
18" CMP
DBL. D.W.
N 86°34'53" E
Eastview 3+56.61
Eastview 5+28.87
Eastview 6+47.40
Eastview 8+54.11
10" CMP
DBL. D.W. (Slope to drain)
27" CMP (To Daylight. From Daylight to boundary, install "Disposal Trench")
31' Drainage Ease
Ely Part. of Sly. Boundary, Glenedeen III
Standard 48" 'Concrete Products' Manhole or equivilant
Wly. Part of Sly. Boundary, Glenedeen III
End of Project 1+62.52
Ely Boundary, Sec. 23, T27N R43E, WM
End of Project 9+76.95
Ely boundary, Glenedeen III
SCALE: 1"=50'
2" P.M. & 4" C.R.B.
50' RoW
CROSS SECTION
Eastview Drive & Cul-De-Sacs
2" P.M. & 4 C.R.B.
60' RoW
CROSS SECTION
Cincinnati
Note: Pavement and Curb are Standard Spokane County Plans
J. PAUL RAMER
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER AND LAND SURVEYOR
Gleneden III
Eastview Drive
Road Plan & Profile
Date Dec. 4, 1975
Drawn Randall C.
Horizontal 1"=50'
Vertical 1"=10'
Project No. 75183
Sht 2 of 3
EASTVIEW DRIVE
1645.0' 25'L
1645.0
1645.0 25'R
-4.281%
-0.50%
0.50%
4.0%
-3.738%
-3.835%
Low Pt. is V.P.I.
D.W.-3+50.00
elev. 16
50' V.C.
100' V.C.
E=.125'
100' V.C.
E=.563'
100' V.C.
E=-.125'
5%
End of Project
APPROVED FOR CONSTRUCTION
R. S. TURNER
SPOKANE COUNTY ENG.
BY James A. Rigot
9-7-76
PERMIT REQUIRED!
NOTIFY THE PERMIT ENGINEER
456-3600
24 HRS. PRIOR TO CONSTRUCTION

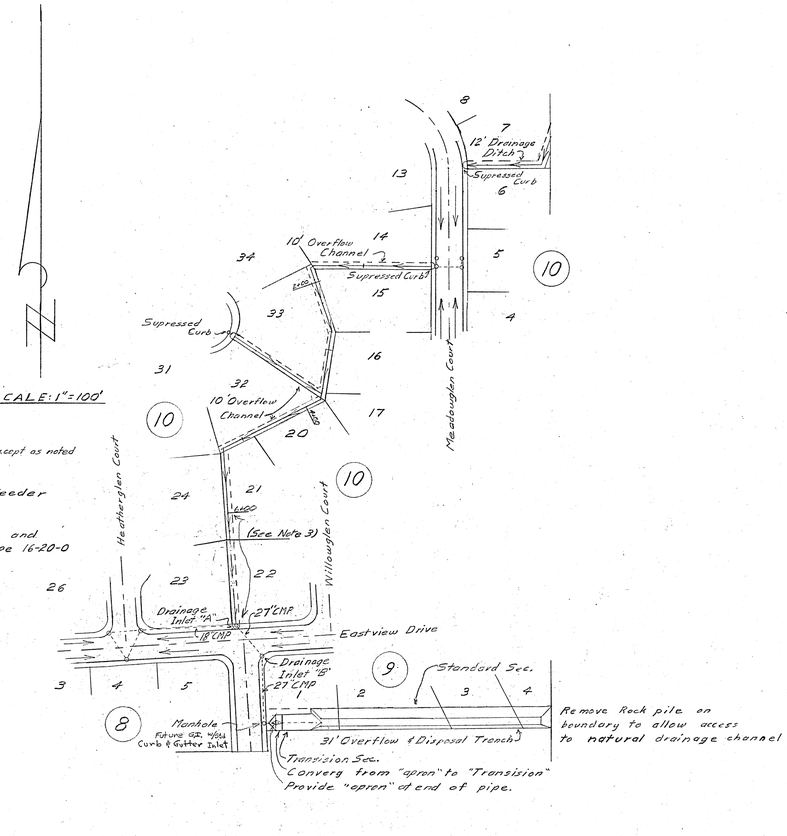


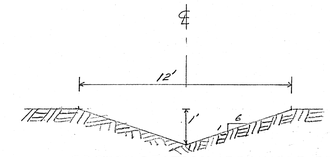
REVISIONS		
Overflow Ditch	4/2/76	Gleneden III
Curb detail	5/14/76	Cul-De-Sacs off Eastview
Grades on Heatherglen	6/10/76	Plans & Profiles

Date Dec. 5, 1975
Drawn Randall C.
Checked
Field Book
SCALE Horizontal 1"=50' Vertical 1"=10'
SANGENT, RAMER & ASSOC., INC. CIVIL ENGINEERS & LAND SURVEYORS N.10115 NEWPORT HWY. PH. NU 7-1653 SPOKANE, WASHINGTON 99218
Project No. 75183
Sht 3 of 3

APPROVED FOR CONSTRUCTION
R. S. TURNER
SPOKANE COUNTY ENG.
BY James A. Lyst
9-7-76

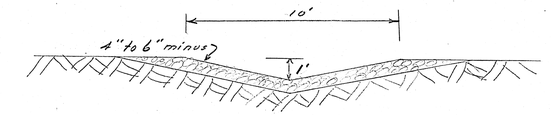
PERMIT REQUIRED
NOTIFY THE PERMIT ENGINEER
456-3600
24 HRS. PRIOR TO CONSTRUCTION



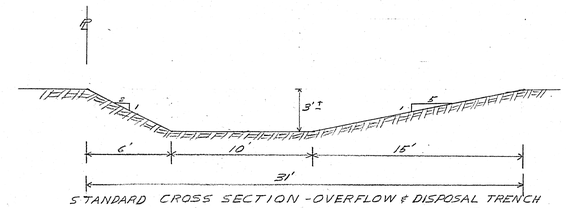


CROSS SECTION-DRAINAGE DITCH

Note: Supressed Curb details are the same as for Overflow channel except for 6:1 slope, absence of Drywell, and .35' Depression.



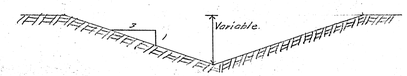
CROSS SECTION-OVERFLOW DITCH
6+00 to 7+50



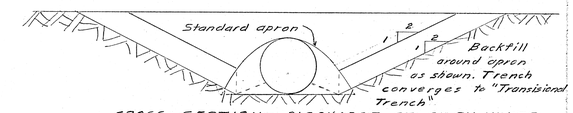
STANDARD CROSS SECTION-OVERFLOW & DISPOSAL TRENCH

Note: Lower end is closed by plane on 5:1 slope. (See Profile)

Note: From Pipe to "Standard" Section "Transion" trench exists w/ 3:1 slopes.



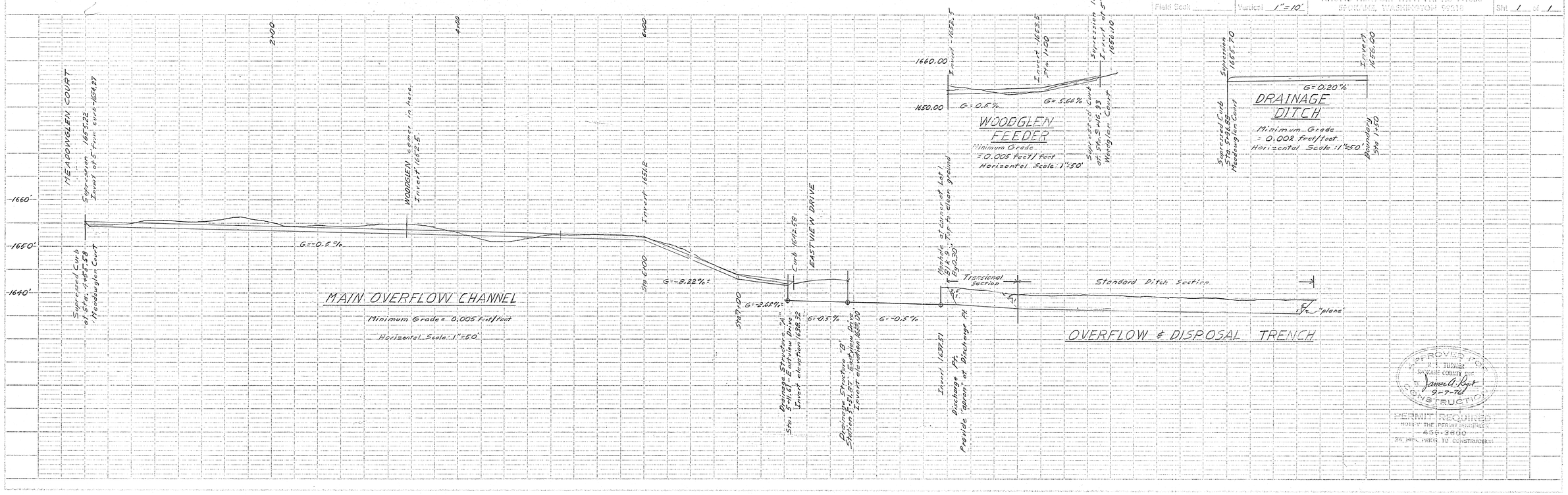
CROSS SECTION-TRANSISIONAL TRENCH



CROSS SECTION - DISCHARGE PT. OF CULVERTS

J. PAUL RAMER
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER AND LAND SURVEYOR

REVISIONS	GLENEDEN III
	DRAINAGE
Date June 7, 1976	SCALE: Horizontal As Marked; Vertical 1"=10'
Drawn Randall C.	SADDUCKE, RAMER & ASSOC., INC. CIVIL ENGINEERS & LAND SURVEYORS 11011 N. NEWPORT HWY., P.O. BOX 2-1188 SPOKANE, WASHINGTON 99218
Checked	
Field Book	
Project No. 75123	Sht. 1 of 1



APPROVED BY
R. T. TURNER
SPOKANE COUNTY
9-7-76
ENGINEER
CONSTRUCTION

PERMIT REQUIRED
NOTIFY THE PERMIT ENGINEER
456-3500
24 HRS. PRIOR TO CONSTRUCTION