W.B. WELLS
AND ASSOCIATES, INC.
ENGINEERS
SURVEYORS
4230 N.E. FREMONT ST.
PORTLAND, OR 97213
PHONE (503) 284-5896

SHEET INDEX

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8. SANITARY SEWER PROFILE LINE "A" AND LINE "C"
9. SANITARY SEWER PROFILE LINE "B"
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10A. DETAILS
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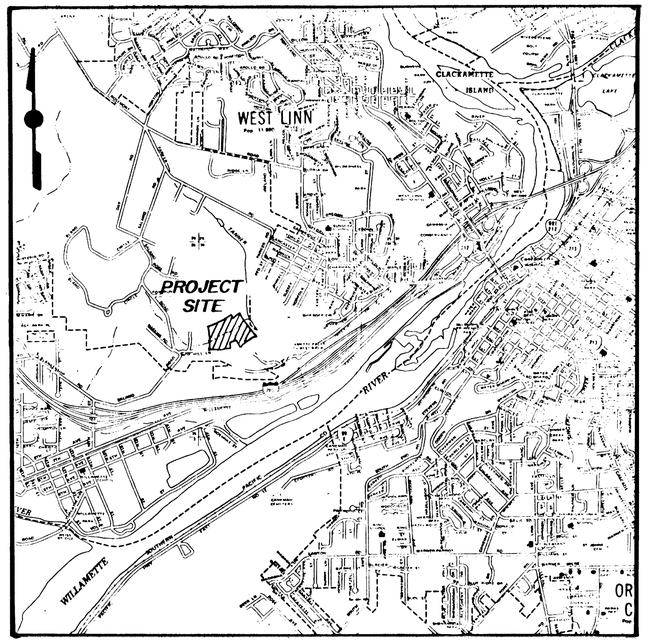
PHASE IV

BARRINGTON HEIGHTS



VICINITY MAP

N.T.S.

AS CONSTRUCTED
1-17-90

BARRINGTON DEVELOPMENT, INC.
ATTN: MR. BRUCE AMENT
10804 S.E. HWY. 212
Clackamas, Oregon 97015

CONSTRUCTION NOTES

1. Contractor shall remove and dispose of all cleared and grubbed material, including but not limited to trees, stumps, limbs, rocks, boulders, roots, brush and debris. All cleared and grubbed material shall be disposed of off the site in accordance with all state, federal, and local regulations. No on-site disposal of cleared and grubbed material is allowed.

2. All trees 6 inch caliper and greater in cut or fill areas of three (3) feet or less are to remain unless directed by the city in writing. Care is to be taken to protect the root systems from cutting or suffocation.

3. EMBANKMENT NOTES:
   A. Embankment materials shall be free from organics, frozen material, concrete, asphalt concrete and other debris.
   B. Embankment shall be constructed in successive horizontal layers not exceeding eight (8) inches in loose thickness. The use of loaded hauling equipment will be acceptable in all but the last two (2) feet of fill for compaction, provided the required density is obtained throughout the width and depth of each layer. The top two (2) feet shall be compacted using suitable mechanical compactor.
   C. Compact each lift as follows:
      1. All but top two (2) feet 90% of AASHTO T-99.
      2. Top two (2) feet 95% of AASHTO T-99.
   D. The material in each layer shall be of a moisture content to meet the above compaction requirement. Wetting or drying of the material and manipulation to secure a uniform moisture content throughout the layer may be required. Should the materials be too wet to permit proper compaction by rolling, all work on all portions of the fill thus affected shall be delayed until the material has dried to an acceptable moisture content.
   E. The owner and engineer shall reserve the right to call for compaction tests. If the tests do not show suitable results, the contractor shall correct it at no cost to the owner.
   F. 3:1 slopes shall be groomed prior to hydroseeding.
   G. All fill areas outside of R/W shall be hydroseeded for erosion control. If erosion creates channels on slope banks or at low areas, hay bales shall be deposited at said locations.

4. All earthwork shall comply with A.F.W.A. Division II Section 24, including amendments.

GENERAL

1. CONSTRUCTION SHALL CONFORM WITH THE CITY OF WEST LINN STANDARDS & SPECIFICATIONS AND 1980 A.F.W.A. OREGON CHAPTER SPECIFICATIONS AND STANDARD DETAILS.

2. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND LICENSES BEFORE STARTING CONSTRUCTION.

3. CONTRACTOR SHALL HAVE MARKED EXISTING UTILITIES (I.E.:GAS & WATER) PRIOR TO CONSTRUCTION.

   A. CONTRACTOR SHALL COORDINATE WITH THE GAS COMPANY TO RELOCATE ANY GAS LINES TO AN ACCEPTABLE LOCATION.

4. CONTRACTOR SHALL KEEP CITY ENGINEER & ENGINEER ADVISED OF HIS PROGRESS SO THAT INSPECTIONS CAN BE PERFORMED IN AN EFFICIENT MANNER. 24 HR. NOTICE MUST BE GIVEN FOR INSPECTIONS OR TESTS.

5. THE CONTRACTOR SHALL DO ALL OF THE WORK SHOWN ON THE DRAWINGS AND ALL INCIDENTAL WORK CONSIDERED NECESSARY TO COMPLETE THE PROJECT IN AN ACCEPTABLE MANNER.

6. ALL MATERIAL SUPPLIER(S) SHALL SUBMIT TO THE ENGINEER PROOF OF MATERIAL(S) TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATIONS AND SHALL CERTIFY THAT ALL MATERIAL TO BE DELIVERED TO THE JOB SITE MEETS OR EXCEEDS SAID SPECIFICATIONS PRIOR TO DELIVERY TO THE SITE. ANY MATERIAL NOT CERTIFIED BY THE SUPPLIER SHALL BE REMOVED FROM THE JOB SITE AT NO ADDITIONAL COST TO THE OWNER. "NO REJECT MATERIAL ALLOWED ON THE SITE".

STREET NOTES

1. Subgrade and aggregate base (prior to paving) shall be proof rolled, in the presence of the Engineer (or his representative) and the City of West Linn inspector, using a 10-yard dump truck loaded with 3/4"-0" crushed rock.

2. All underground utilities, including water services and utility crossings shall be constructed prior to subgrade proof rolling or curb construction.

3. Two (2) 3" diameter curb rain drain outlets are to be provided per lot, within 5 feet of the property line, unless storm sewer service is provided.

4. Curbs shall be stamped with an "S" for sanitary sewers and a "W" for water, placed directly over the spot that the lateral or service line passes under the curb.

5. All fill material for the road is to be per city specification.

6. Extent of the pavement removal is to be field determined with the assistance of the city staff.

WATERLINE NOTES

1. ALL MAINLINE PIPE SHALL BE DUCTILE IRON, CLASS 52 (AWWA C-151-76) WITH TYTON JOINTS. ALL THRUST BLOCKS, FIRE HYDRANTS, TRENCH BACKFILL, WATER SERVICE AND BLOWOFFS SHALL BE AS SHOWN ON THE DETAIL SHEET.

2. ALL PIPE SHALL HAVE 30" MINIMUM COVER MEASURED FROM FINISH GRADE AND SHALL COMPLY WITH REGULATIONS OF THE OREGON STATE BOARD OF HEALTH AND THE DEPARTMENT OF ENVIRONMENT QUALITY REGARDING THE LOCATION AND SEPARATION OF WATERLINES AND SANITARY SEWER.

3. VERTICAL ALIGNMENT OF THE WATERLINE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

4. UPON COMPLETION OF INSTALLATION OF THE WATER SYSTEM, ALL LINES SHALL BE FLUSHED AND DISINFECTED IN CONFORMANCE WITH HEALTH DIVISION GUIDELINES. CONTRACTOR SHALL PRESSURE TEST ALL LINES. TEST PRESSURE OF 150 PSI SHALL BE HELD FOR TWO HOURS UNTIL TEST RESULTS ARE SATISFACTORY. PIPELINES TO BE TESTED IN ACCORDANCE WITH A.F.W.A. DIVISION IV, SECTION 402.3.04. TESTING TO BE OBSERVED BY THE ENGINEER AND THE CITY.

5. WATER SERVICES TO BE 1" (TYPE K SOFT) COPPER FOR DOUBLE SERVICES AND 3/4" COPPER (TYPE K SOFT) FOR SINGLE SERVICE. CORPORATION STOP TO BE FORD F1000 AND SERVICE TEE TO BE FORD T 444-443 COMPRESSION FITTINGS. METER BOXES WILL BE INSTALLED BY CONTRACTOR AND SHALL BE NO. 1 METER BOX MFG. BY METER BOX EQUIPMENT CO., TIGARD, OR.

6. FIRE HYDRANTS ARE TO BE OF THE DRY BARREL, WATEROUS TYPE, COMPLYING WITH A.W.W.A. C502.

7. GATE VALVES ARE TO BE NRS TYPE WITH 2" OPERATING NUT, COUNTER-CLOCKWISE OPENING, CONFORMING TO A.W.W.A. C500.

8. PIPELINE TO BE DISINFECTED IN ACCORDANCE WITH A.F.W.A. DIVISION IV, SECTION 402.3.05.

SANITARY SEWER

1. SANITARY SEWER PIPE SHALL BE 3034 PLASTIC PIPE. MANHOLES, CLEANOUTS, PIPE BEDDING AND TRENCH BACKFILL SHALL BE AS SHOWN ON THE DETAIL SHEET.

2. ALL SERVICE LATERALS TO BE CONSTRUCTED AT A MINIMUM SLOPE OF 1/4" PER LINEAR FOOT, UNLESS OTHERWISE, SHOWN ON THE PLANS.

3. CONTRACTOR SHALL PRESSURE TEST ALL LINES BY AFWA PROCEDURE OR APPROVED EQUIVALENT. ALL SEWER LINES ARE TO BE AIR TESTED PER A.F.W.A. DIVISION III, SECTION 303.5.16. TESTS ARE TO BE OBSERVED BY THE ENGINEER AND THE CITY.

4. SANITARY SEWER LATERALS SHALL BE PLUGGED & MARKED WITH A 2"X4" MARKER EXTENDED FROM THE END OF THE LATERAL TO A POINT 2' ABOVE FINISH GRADE AND LABELED "SANITARY SEWER LATERAL". THE DEPTH SHALL ALSO BE NOTED ON THE MARKER.

5. PIPE BEDDING SHALL CONFORM TO THE MATERIAL REQUIREMENTS OF A.F.W.A. DIVISION III, SECTION 301.2.02 FOR 3/4"-0 CRUSHED ROCK.

6. BACKFILL FOR TRENCHES WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO THE MATERIAL REQUIREMENTS OF A.F.W.A. DIVISION III SECTION 301.2.04B FOR 1-1/2"-0 CRUSHED ROCK (CLASS B BACKFILL).

7. TRENCHES OUTSIDE THE RIGHT-OF-WAY MAY BE BACKFILLED WITH MATERIAL EXCAVATED FROM THE TRENCH IN ACCORDANCE WITH A.F.W.A. DIVISION III, SECTION 301.2.04A (CLASS A BACKFILL).

8. Mandrel testing is required for all sanitary sewer lines. Testing to be done in the presence of the Engineer (or his representative) and the City of West Linn inspector.

9 TAMPER PROOF MANHOLE LIDS REQUIRED ON ALL MANHOLES OUTSIDE OF RIGHT OF WAY

STORM SEWER NOTES

1. STORM SEWER PIPE SHALL BE ASTM C-14 CLASS 2 WITHOUT RUBBER GASKETS. CATCH BASINS, INLETS, PIPE BEDDING AND TRENCH BACKFILL SHALL BE AS SHOWN ON THE DETAIL SHEET.

2. ALL STORM SEWER LATERALS SHALL BE MARKED WITH A 2"X4" MARKER EXTENDING FROM THE END OF THE LATERAL TO A POINT 2' ABOVE FINISH GRADE AND MARKED 4" STORM LATERAL. THE DEPTH SHALL BE NOTED ON THE MARKER.

3. ALL PRIVATE STORM SEWER LATERALS SHALL CONFORM TO OREGON STATE PLUMBING CODE.

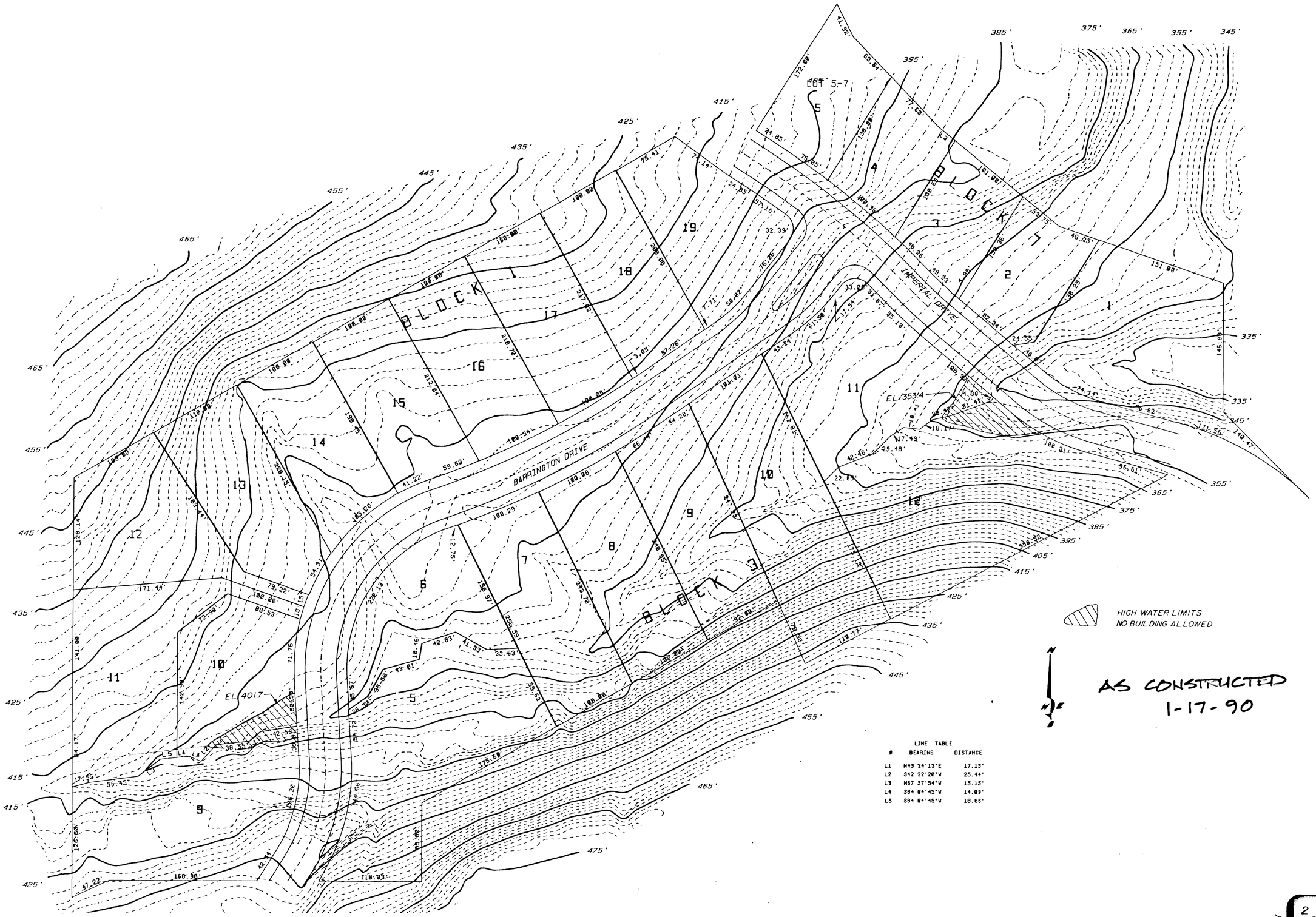
4. PIPE BEDDING SHALL CONFORM TO THE MATERIAL REQUIREMENTS OF A.F.W.A. DIVISION III, SECTION 301.2.02 FOR 3/4"-0 CRUSHED ROCK.

5. BACKFILL FOR TRENCHES WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO THE MATERIAL REQUIREMENTS OF A.F.W.A. DIVISION III, SECTION 301.2.04B FOR 1-1/2"-0 CRUSHED ROCK (CLASS B BACKFILL).

6. TRENCHES OUTSIDE THE RIGHT-OF-WAY MAY BE BACKFILLED WITH MATERIAL EXCAVATED FROM THE TRENCH IN ACCORDANCE WITH A.F.W.A. DIVISION III, SECTION 301.2.04A (CLASS A BACKFILL).

7 TAMPER PROOF MANHOLE LIDS REQUIRED ON ALL MANHOLES OUTSIDE OF RIGHT OF WAY

Barrington Heights IV



LINE TABLE

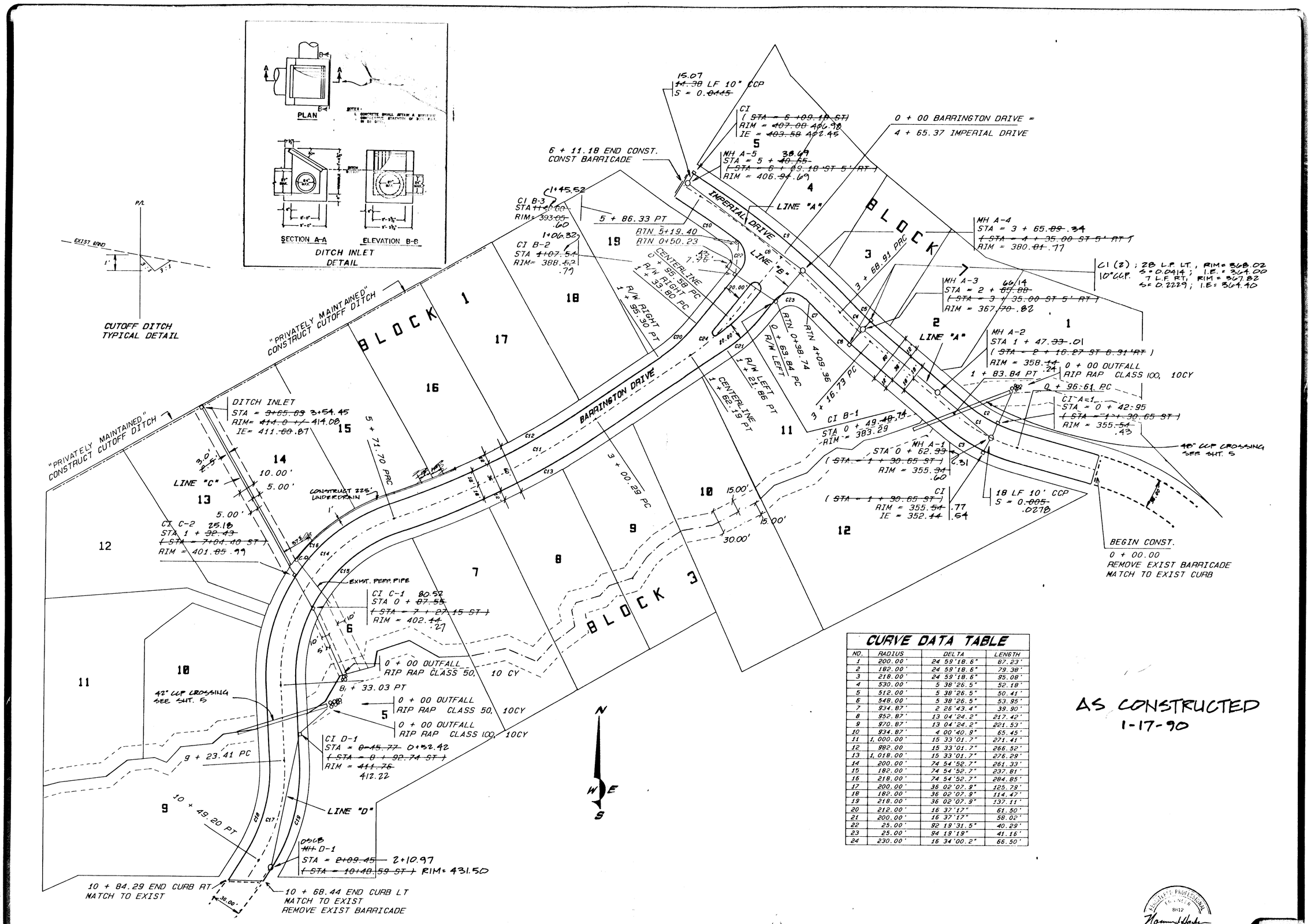
#	BEARING	DISTANCE
L1	N45 24'13"E	17.15'
L2	S42 22'20"W	25.44'
L3	N67 57'54"W	15.15'
L4	S84 04'45"W	14.09'
L5	S84 04'45"W	18.66'

DESIGNED: N.J.H.
RESOLVED: N.A.
DRAWN: B.S. & CAD
CHECKED: N.J.H.
DATE: 11-88
SCALE: 1" = 50'
FILE NO.: 88-55
REVISED:
APPROVED:

PHASE IV
BARRINGTON HEIGHTS
WEST LINN, OREGON.

TOPOGRAPHIC SURVEY

Hull Wells & assoc., inc.
ENGINEERS · SURVEYORS · LAND PLANNING · 4230 N.E. FREMONT STREET · PORTLAND, OREGON · 97213 · PHONE (503) 284-5896 · FACSIMILE (503) 284-8530



CURVE DATA TABLE

NO.	RADIUS	DELTA	LENGTH
1	200.00'	24 59'18.6"	87.23'
2	182.00'	24 59'18.6"	79.38'
3	218.00'	24 59'18.6"	95.08'
4	530.00'	5 38'26.5"	52.18'
5	512.00'	5 38'26.5"	50.41'
6	548.00'	5 38'26.5"	53.95'
7	934.87'	2 26'43.4"	39.90'
8	952.87'	13 04'24.2"	217.42'
9	970.87'	13 04'24.2"	221.53'
10	934.87'	4 00'40.9"	65.45'
11	1,000.00'	15 33'01.7"	271.41'
12	982.00	15 33'01.7"	266.52'
13	1,018.00'	15 33'01.7"	276.29'
14	200.00'	74 54'52.7"	261.33'
15	182.00'	74 54'52.7"	237.81'
16	218.00'	74 54'52.7"	284.85'
17	200.00'	36 02'07.9"	125.79'
18	182.00'	36 02'07.9"	114.47'
19	218.00'	36 02'07.9"	137.11'
20	212.00'	16 37'17"	61.50'
21	200.00'	16 37'17"	58.02'
22	25.00'	92 19'31.5"	40.29'
23	25.00'	94 19'19"	41.16'
24	230.00'	16 34'00.2"	66.50'

AS CONSTRUCTED
1-17-90

REGISTERED PROFESSIONAL ENGINEER
8812
Kenneth Hader
OREGON
JULY 1, 1990

3 of 11

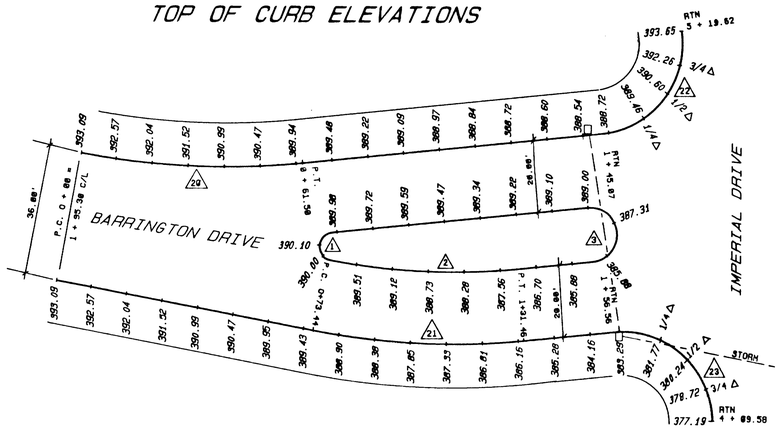
DESIGNED: N.J.H.
REVIEWED: N.A.
DRAWN: B.S. & CAD
CHECKED: N.J.H.
DATE: 11-88
SCALE: 1" = 50'
FILE NO.: 88-55
REVISED: 12/28/88 / 12/89
APPROVED:

PHASE IV
BARRINGTON HEIGHTS
WEST LINN, OREGON

STREET AND STORM SEWER PLAN

LUB Wells & assoc., inc.
ENGINEERS · SURVEYORS · LAND PLANNING · 4230 N.E. FREMONT STREET · PORTLAND, OREGON · 97213 · PHONE (503) 284-5896 · FACSIMILE (503) 284-8530

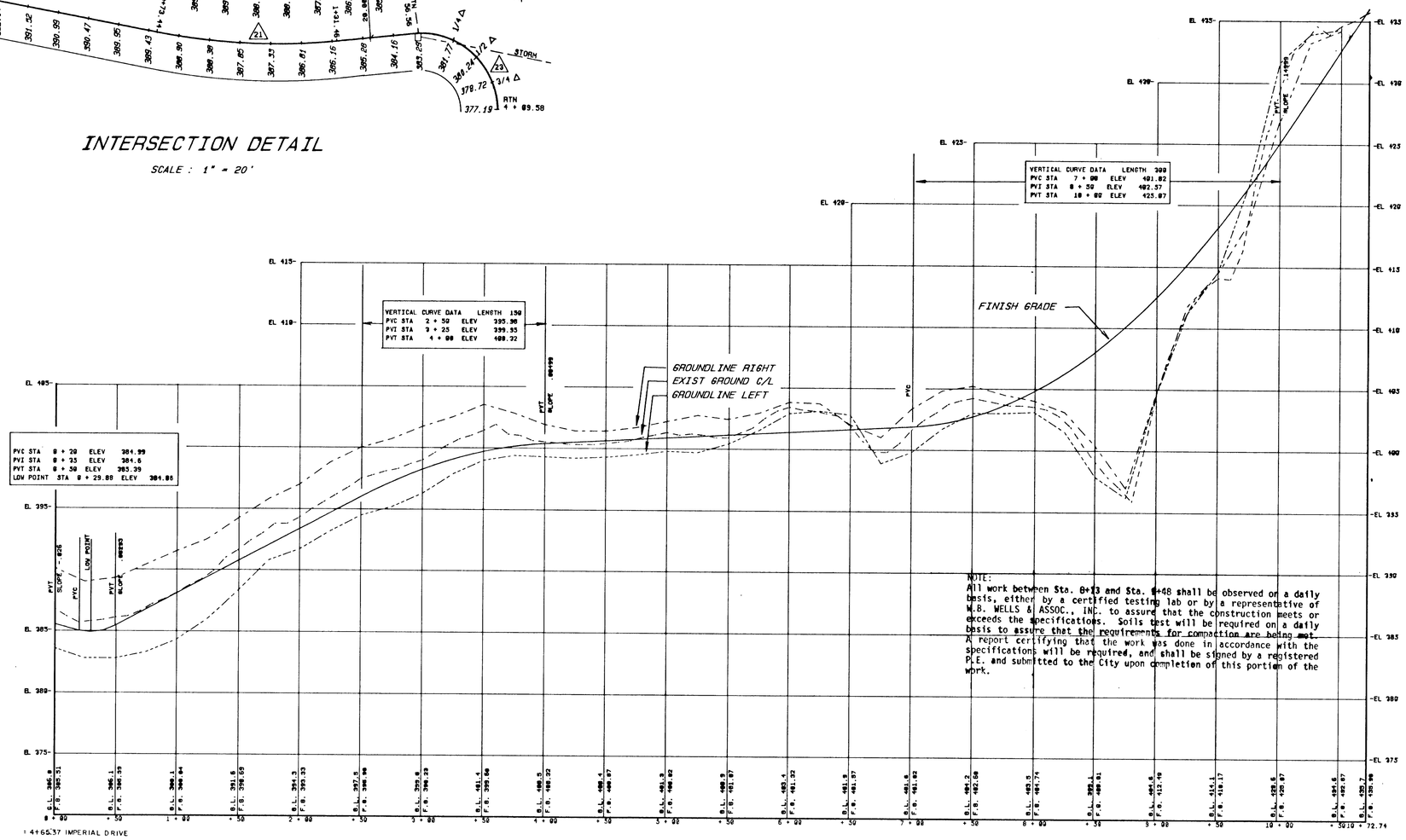
TOP OF CURB ELEVATIONS



INTERSECTION DETAIL

SCALE : 1" = 20'

CURVE TABLE			
CURVE NO.	RADIUS	DELTA	LENGTH
1	3.82	163 19' 45.6"	10.00'
2	180.00	16 37' 18.7"	52.22'
3	7.50	180 00' 00"	23.56'



NOTE:
All work between Sta. 8+13 and Sta. 8+48 shall be observed on a daily basis, either by a certified testing lab or by a representative of W.B. WELLS & ASSOC., INC. to assure that the construction meets or exceeds the specifications. Soils test will be required on a daily basis to assure that the requirements for compaction are being met. A report certifying that the work was done in accordance with the specifications will be required, and shall be signed by a registered P.E. and submitted to the City upon completion of this portion of the work.

BARRINGTON DRIVE PROFILE

SCALE : 1" = 50' HORIZ
1' = 5' VERT

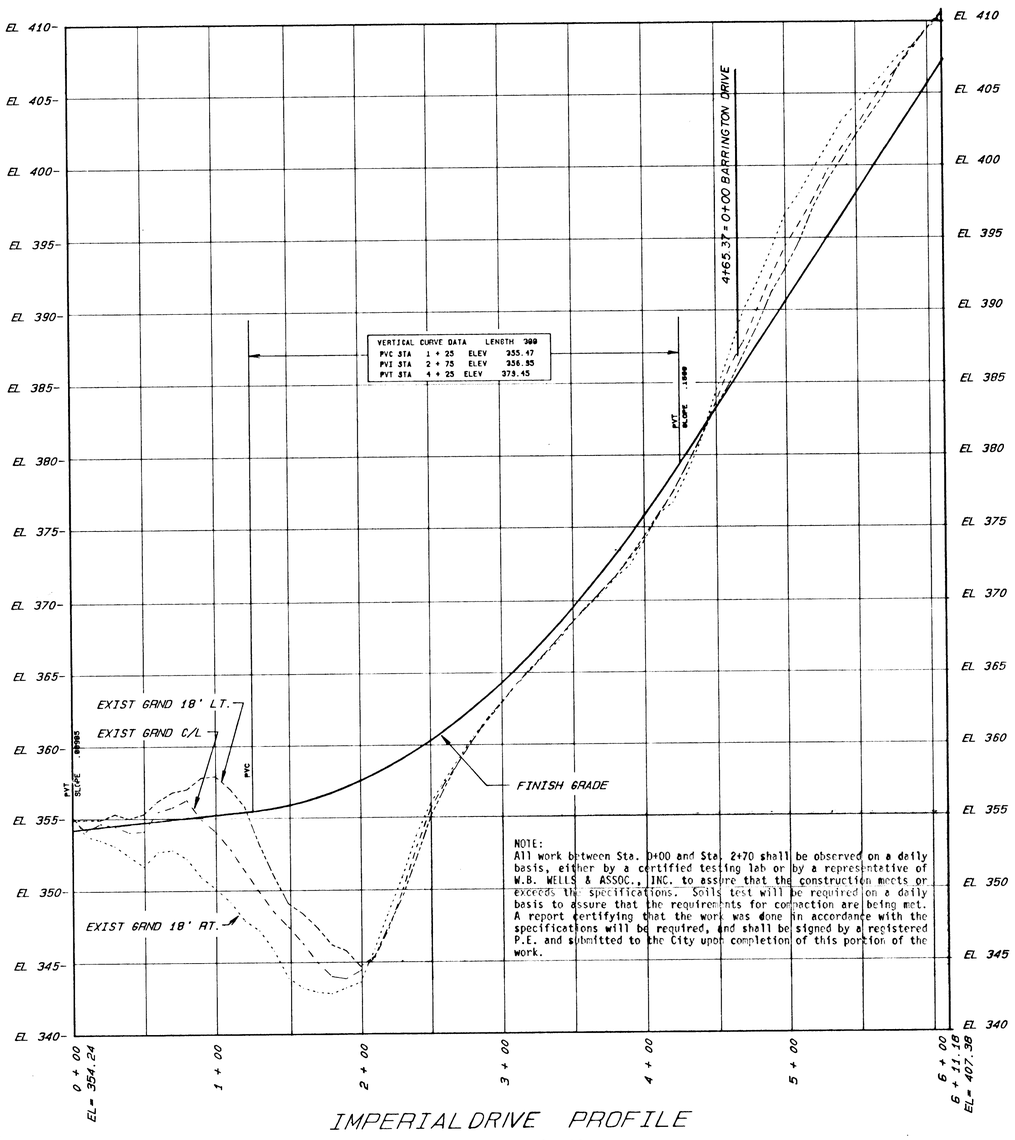
AS CONSTRUCTED
1-17-90

DESIGNED : N.H.
RESOLVED : N/A
DRAWN : BLS. CAD
CHECKED : N.H.
DATE : 11-21-88
SCALE : 1"=50', 1"=5'
FILE NO. : 88-95
REVISED : 12-28-88
APPROVED:

PHASE IV
BARRINGTON HEIGHTS
WEST LINN, OREGON

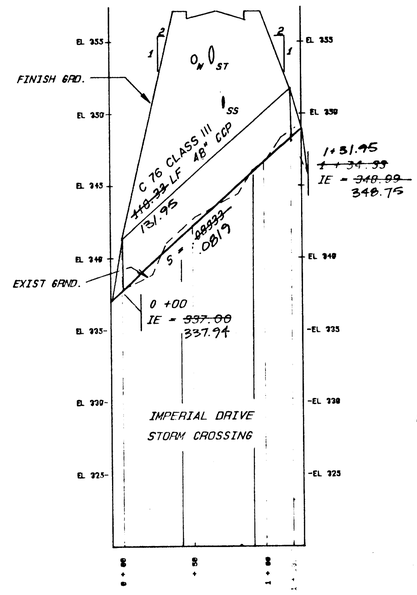
BARRINGTON DRIVE
PROFILE

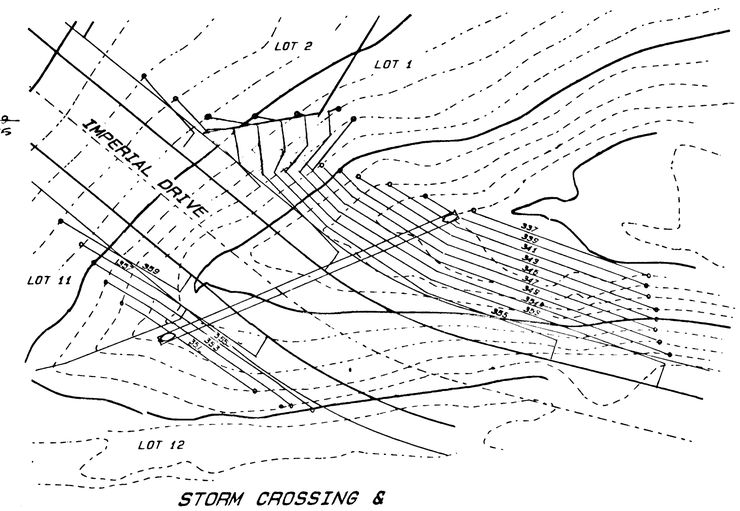
ENGINEERS · SURVEYORS · LAND PLANNING · 4230 N.E. FREMONT STREET · PORTLAND, OREGON · 97213 · PHONE (503) 284-5896 · FACSIMILE (503) 284-8530
WB Wells & assoc., inc.



IMPERIAL DRIVE PROFILE

SCALE: 1" = 50' HORIZ
1" = 5' VERT

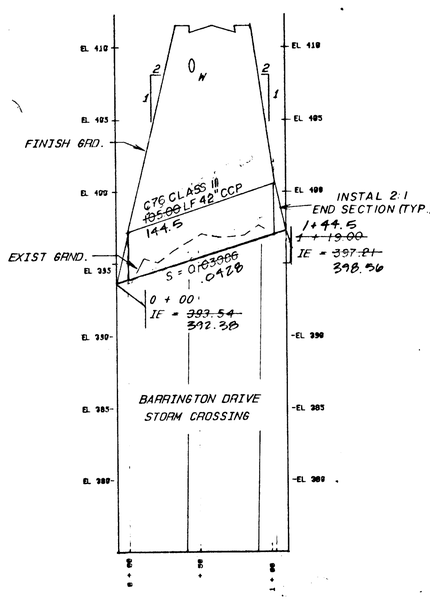




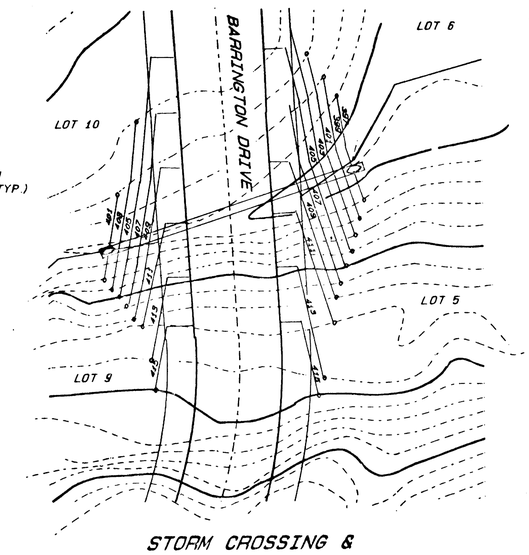
STORM CROSSING &
GRADING PLAN

SCALE : 1" = 30'

NOTE:
FILL AREAS TO RECIEVE EROSION CONTROL AS SHOWN ON SHEET 1



SCALE: 1" = 50' HORIZ
1" = 5' VERT



STORM CROSSING &
GRADING PLAN

SCALE : 1" = 30'

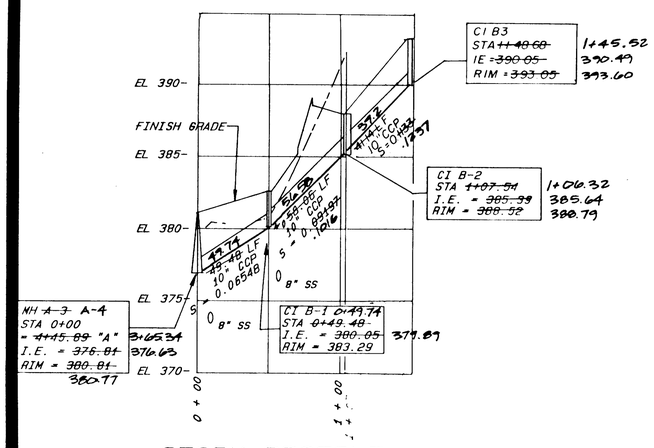
AS CONSTRUCTED
1-17-90

DESIGNED : N.J.H.
RESOLVED : N/A
DRAWN : B.S.B. CAD
CHECKED : N.J.H.
DATE : 1-1-88
SCALE : AS SHOWN
FILE NO. : 88-55
REVISED : 12-28-88
APPROVED :

PHASE IV
BARRINGTON HEIGHTS
WEST LINN, OREGON

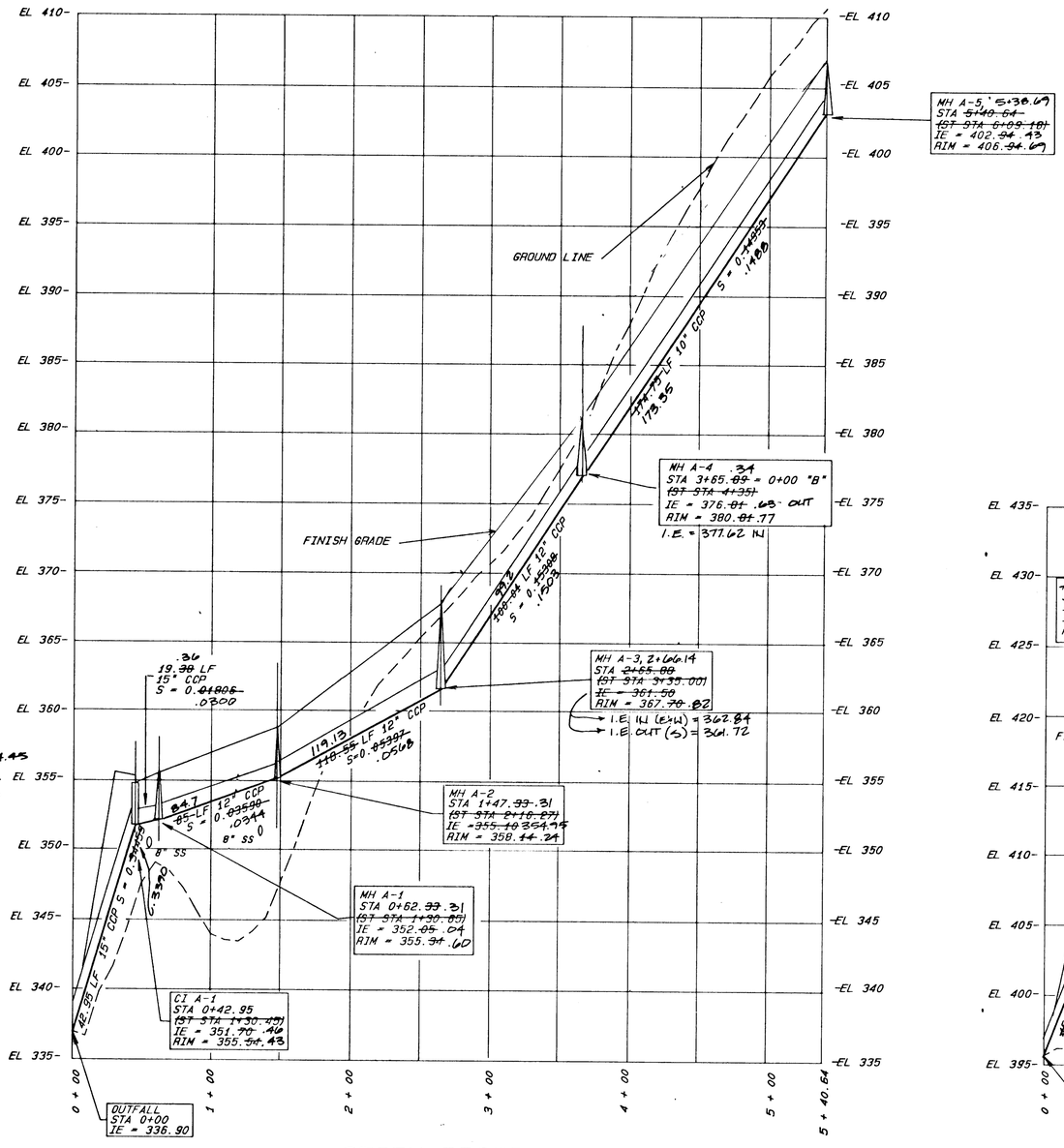
IMPERIAL DRIVE
PROFILE AND DETAIL

WB WELLS & ASSOC., INC.
ENGINEERS · SURVEYORS · LAND PLANNING · 4230 N.E. FREMONT STREET · PORTLAND, OREGON · 97213 · PHONE (503) 284-5896 · FACSIMILE (503) 284-8530



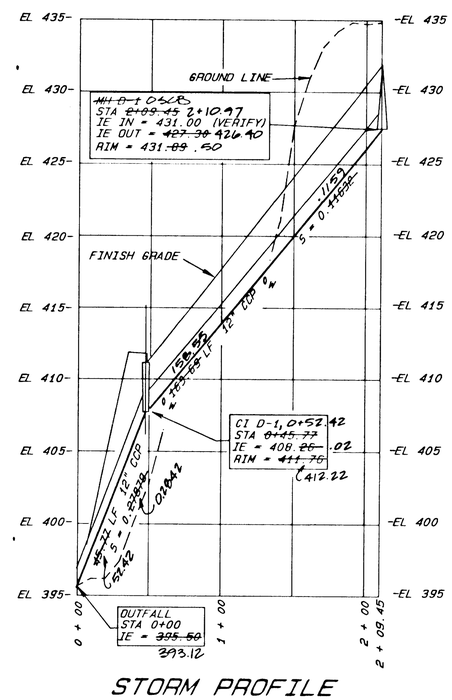
STORM PROFILE
LINE "B"

SCALE: 1" = 50" HORIZ
1" = 5' VERT



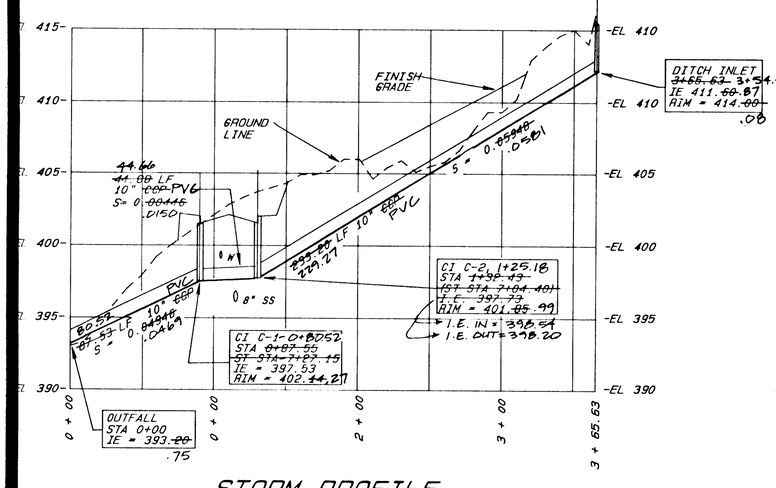
STORM PROFILE
LINE "A"

SCALE: 1" = 50" HORIZ
1" = 5' VERT



STORM PROFILE
LINE "D"

SCALE: 1" = 50" HORIZ
1" = 5' VERT



STORM PROFILE
LINE "C"

SCALE: 1" = 50" HORIZ
1" = 5' VERT

AS CONSTRUCTED
1-16-90

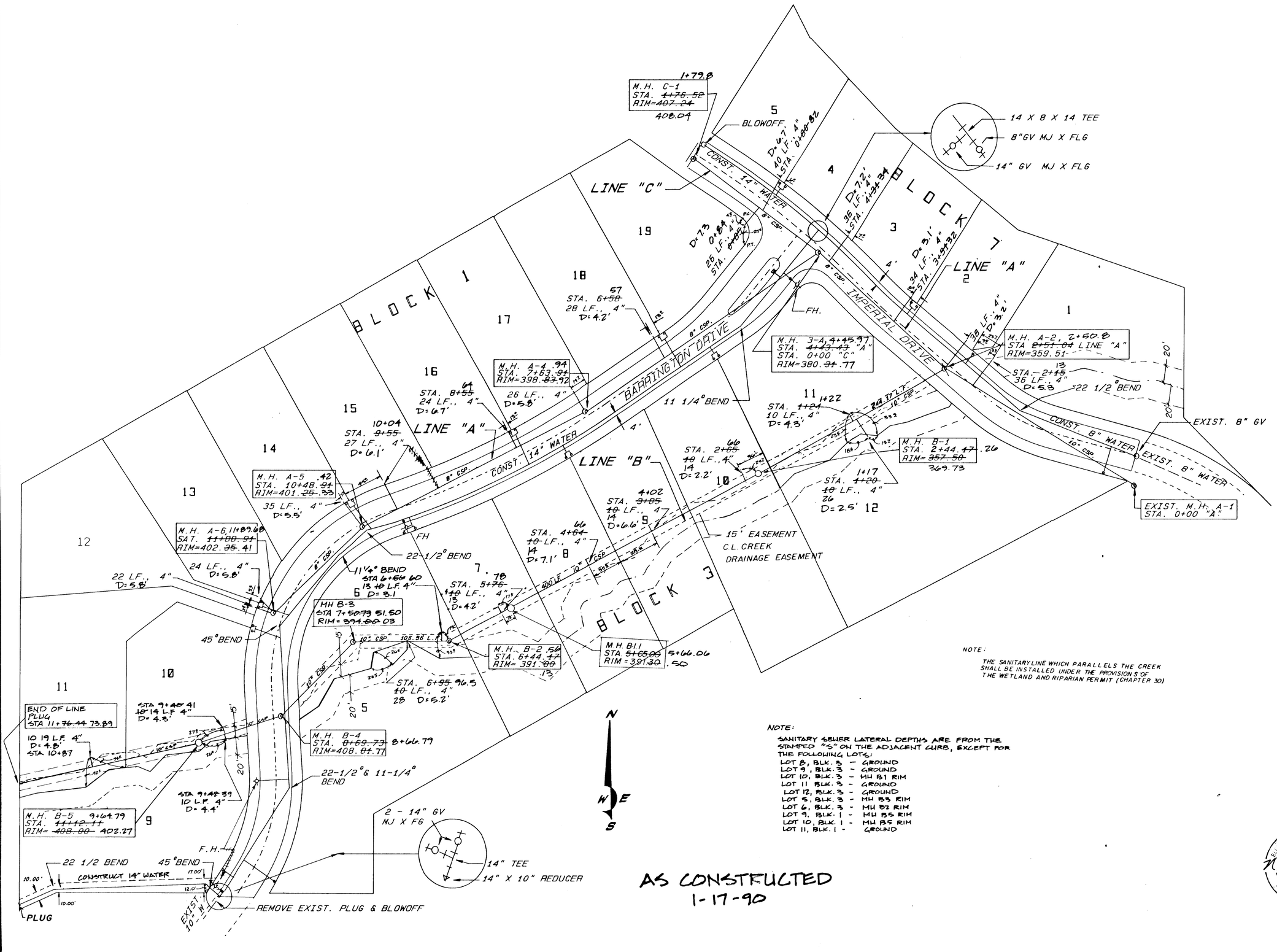
DESIGNED : N. H.
RESOLVED : N/A
DRAWN : M.J.B. CAD
CHECKED : N.H.
DATE : 11-21-88
SCALE : 1"=50', 1"=5'
FILE NO. : 88-55
REVISED :
APPROVED :

PHASE IV
PARTRIDGE ESTATES
WEST LINN, OREGON

STORM SEWER
PROFILES

ENGINEERS · SURVEYORS · LAND PLANNING - 4230 N.E. FREMONT STREET · PORTLAND, OREGON · 97213 - PHONE (503) 284-5896 · FACSIMILE (503) 284-8530
Wells & assoc., inc.

35-55



NOTE:

THE SANITARY LINE WHICH PARALLELS THE CREEK SHALL BE INSTALLED UNDER THE PROVISIONS OF THE WETLAND AND RIPARIAN PERMIT (CHAPTER 30)

NOTE:

SANITARY SEWER LATERAL DEPTHS ARE FROM THE STAMPED "S" ON THE ADJACENT CURB, EXCEPT FOR THE FOLLOWING LOTS:

LOT 8, BLK. 3 - GROUND
LOT 9, BLK. 3 - GROUND
LOT 10, BLK. 3 - MH B1 RIM
LOT 11 BLK. 3 - GROUND
LOT 12, BLK. 3 - GROUND
LOT 5, BLK. 3 - MH B3 RIM
LOT 6, BLK. 3 - MH B2 RIM
LOT 9, BLK. 1 - MH B5 RIM
LOT 10, BLK. 1 - MH B5 RIM
LOT 11, BLK. 1 - GROUND

AS CONSTRUCTED
1-17-90

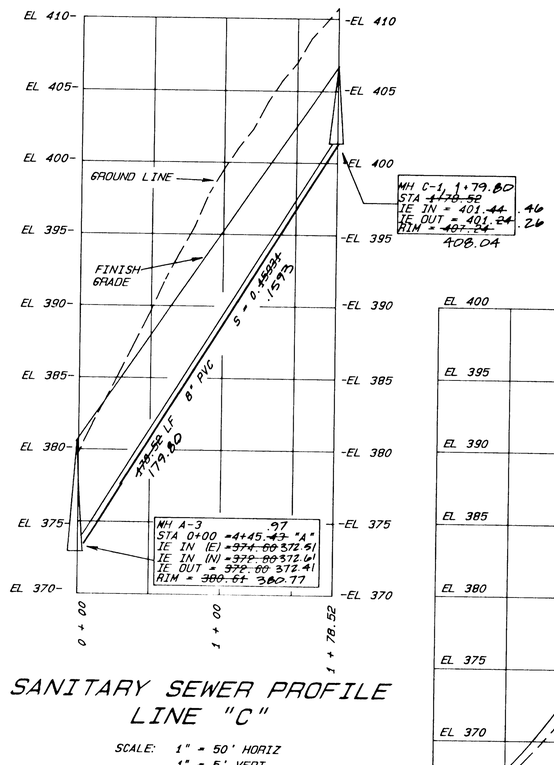
REGISTERED PROFESSIONAL ENGINEER 8812 OREGON JULY 30, 1974 NORMAN J. HARKER

DESIGNED: N.J.H.
REVIEWED: N/A
DRAWN: BSS CAD
CHECKED: N.J.H.
DATE: 12-14-89
SCALE: 1"=50'
FILE NO.: 88-55
REVISED: 3-6-89
APPROVED:

PHASE IV
BARRINGTON HEIGHTS
WEST LINN, OREGON

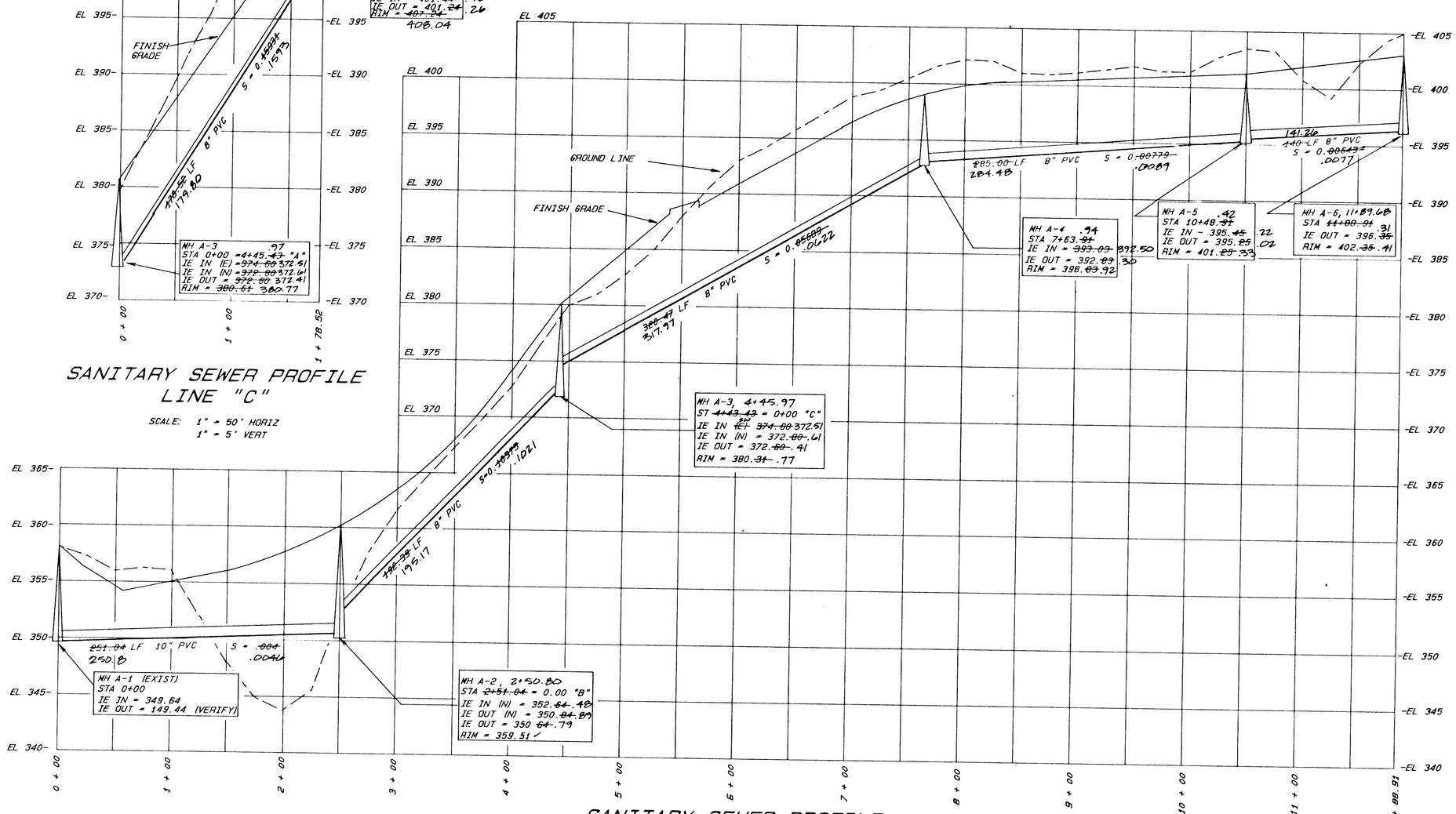
SANITARY SEWER AND WATER PLAN

LUB Wells & assoc., inc.
ENGINEERS · SURVEYORS · LAND PLANNING · 4230 N.E. FREMONT STREET · PORTLAND, OREGON · 97213 · PHONE (503) 284-5896 · FACSIMILE (503) 284-8530



SANITARY SEWER PROFILE
LINE "C"

SCALE: 1" = 50' HORIZ
1" = 5' VERT



SANITARY SEWER PROFILE
LINE "A"

SCALE: 1" = 50' HORIZ
1" = 5' VERT

AS CONSTRUCTED
1-17-90

REGISTERED PROFESSIONAL ENGINEER
8812
OREGON
JULY 30, 1976
NORMAN J. HASKIN

DESIGNED : N.H.
RESOLVED : N/A
DRAWN : M.J.B. CAD
CHECKED : N.H.
DATE : 11-21-88
SCALE : 1"=50', 1"=5'
FILE NO. : 88-36
REVISED :
APPROVED :

PHASE IV
PARTRIDGE ESTATES
WEST LINN, OREGON

SANITARY SEWER
PROFILE
LINE "A" & LINE "C"

LUB Wells & assoc., inc.
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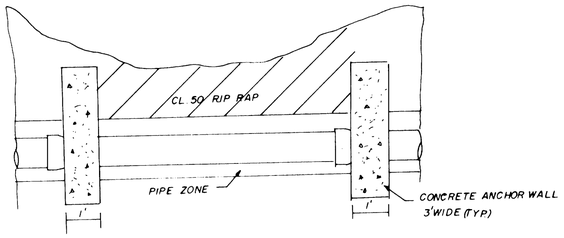
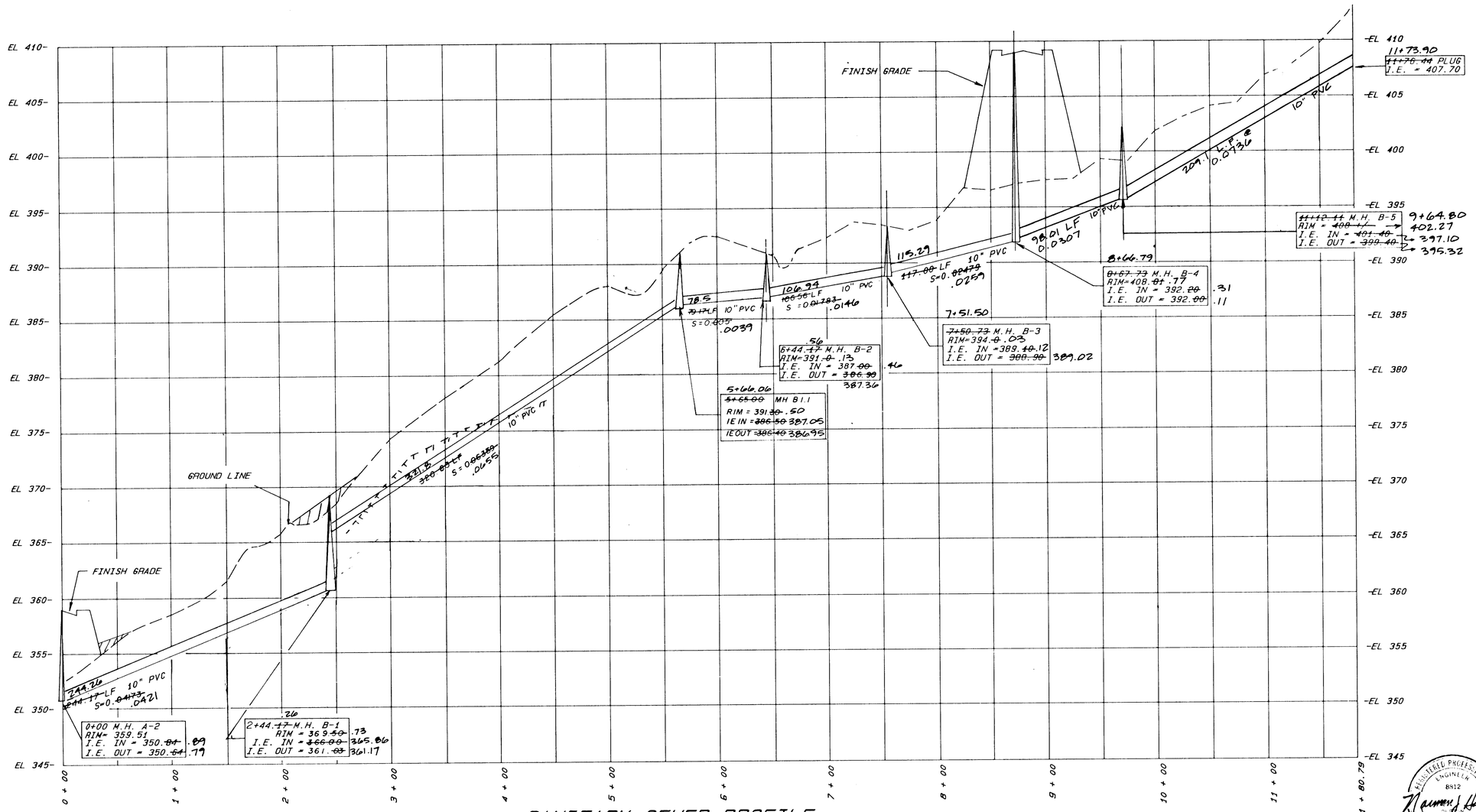


CREEK CROSSING DETAIL



SANITARY SEWER PROFILE
LINE "B"

SCALE 1" = 50' HORIZ.
1" = 5' VERT.

AS CONSTRUCTION
1-17-90

REGISTERED PROFESSIONAL ENGINEER
8812
JULY 30, 1976
NORMAN J. HARKER

9 of 11

DESIGNED: N.J.H.
RESOLVED: N/A
DRAWN: B.S.S. & CAD
CHECKED: N.J.H.
DATE: 1-14-89
SCALE: AS SHOWN
FILE NO.: 88-55
REVISED: 3-8-89
APPROVED:

PHASE IV
BARRINGTON HEIGHTS
WEST LINN, OREGON

SANITARY SEWER PROFILE
LINE "B"

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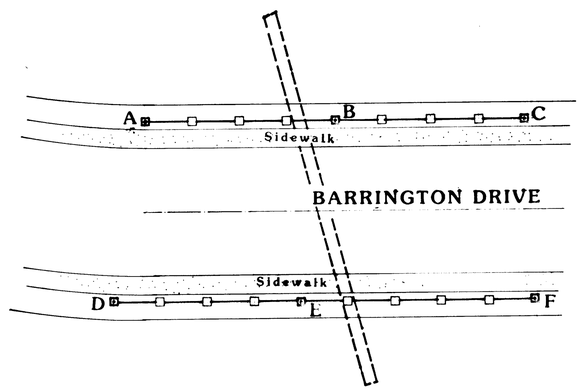
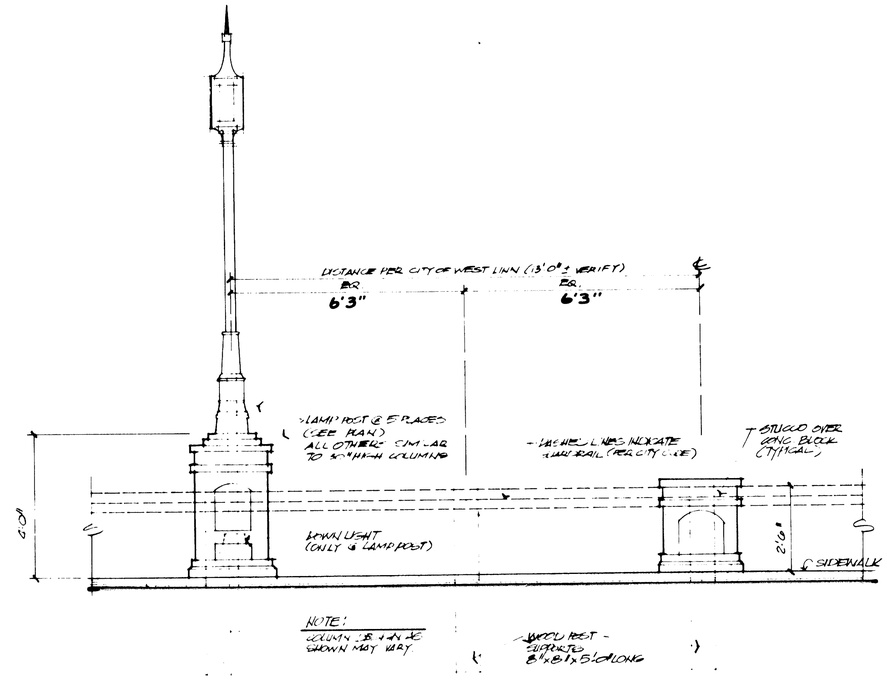


DISTANCE (APPROX.) 'A-C' = 105'-0" ±
DISTANCE (APPROX.) 'D-F' = 115'-0" ±

▣ 24"x24" x 48" HIGH LAMP POST COLUMNS
□ 24"x24" x 30" HIGH INTERMEDIATE COLUMNS

PLAN 1" = 20'-0"



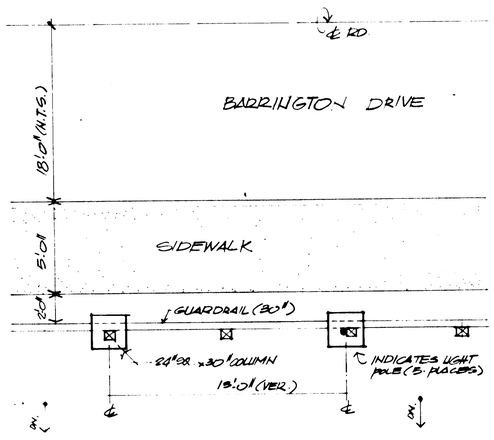
TYPICAL ELEVATION 1/2" = 1'-0"

BRIDGE PLAN & DETAILS

BARRINGTON HEIGHTS IIII

West Linn, OREGON

AS CONSTRUCTED
1-17-90



1/4" = 1'-0"

All ideas, arrangements, drawings and plans set forth on the sheet are the exclusive property of Barclay & Associates and shall not be used by any other designers and use of this said work product is limited to a specified project of the purchaser and for the construction of one building. No other use, reproduction or disclosure to other designers and/or arrangements, other than by Barclay & Associates designers is strictly prohibited by law without the written permission of Barclay & Associates designers.

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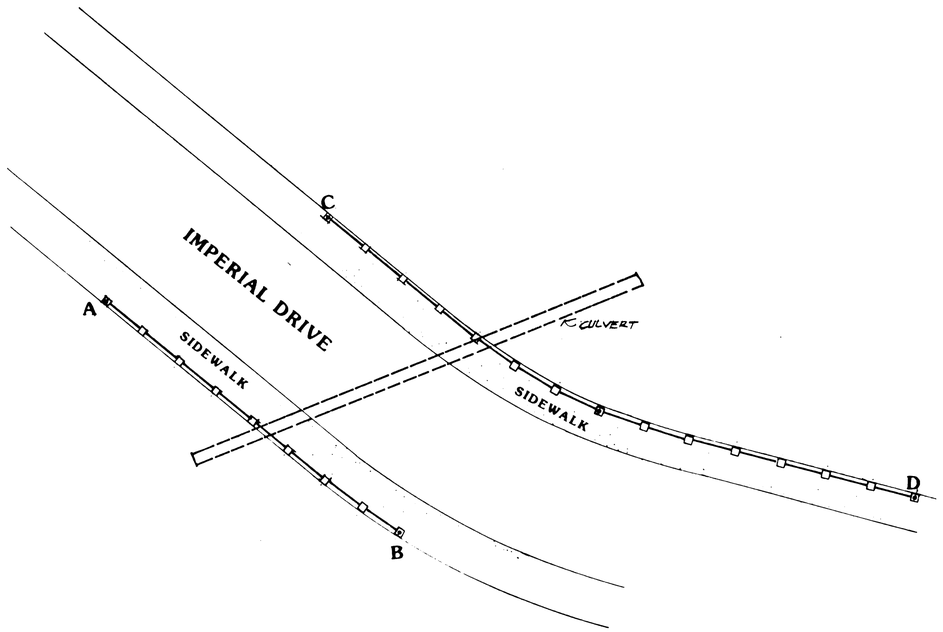
15431 S.E. 82ND Dr. Suite D
Clackamas, OR 97015
(503) 656-1988
1-800-637-8365

BARCLAY & ASSOC. DESIGNERS F.A.I.B.D.

80-75

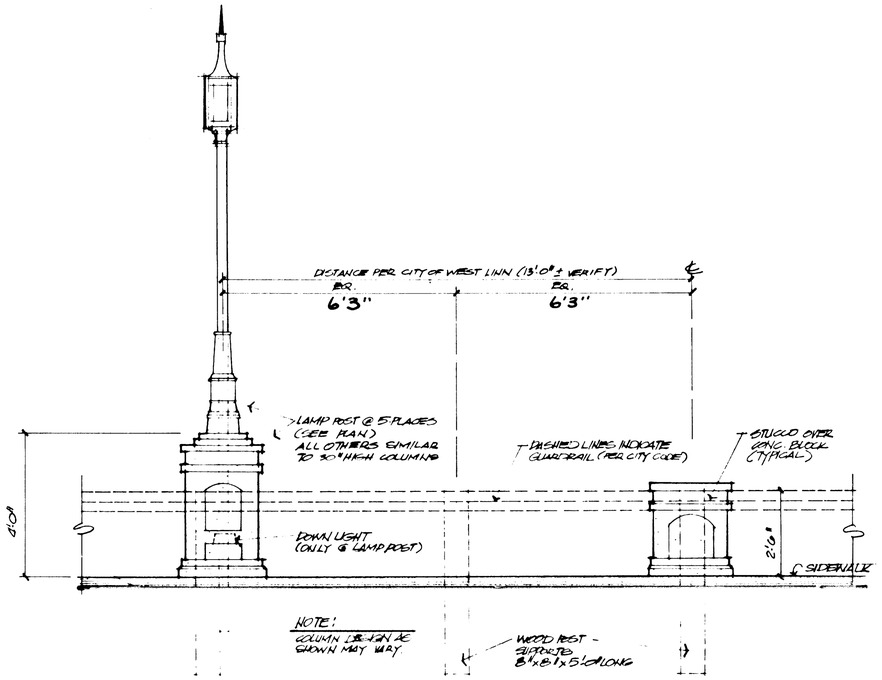
10 of 11

80-75 B
BRIDGE Detail

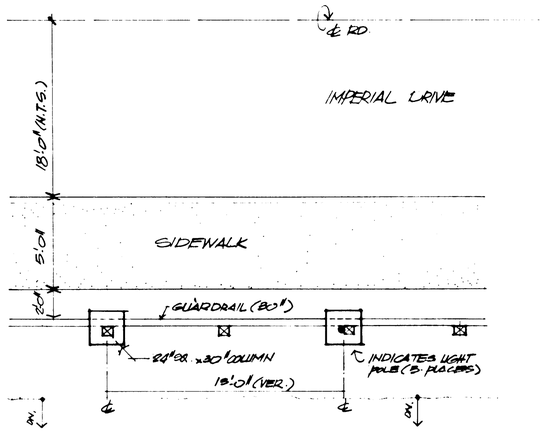


DISTANCE (APPROX.) 'A-B' = 120'-0"
DISTANCE (APPROX.) 'C-D' = 195'-0"
24"x24"x48" HIGH LAMP POST COLUMNS
24"x24"x30" HIGH INTERMEDIATE COLUMNS.

PLAN 1" = 20'0"



TYPICAL ELEVATION 1/2" = 1'-0"



1/4" = 1'-0"

BRIDGE PLAN & DETAILS

BARRINGTON HEIGHTS IIII

West Linn, OREGON

AS CONSTRUCTED
1-17-90

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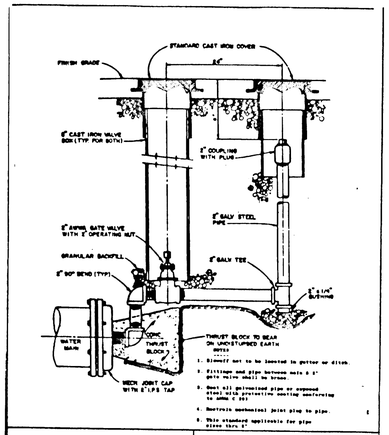
15431 S.E. 82ND Dr. Suite D
Clackamas, OR 97015
(503) 656-1988
1-800-637-8365

88-55

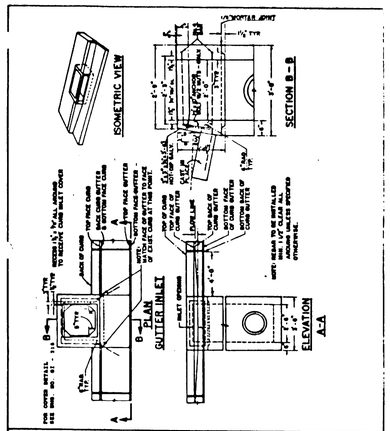
10 A of 11

'90 T.O.B. BRIDGE Details



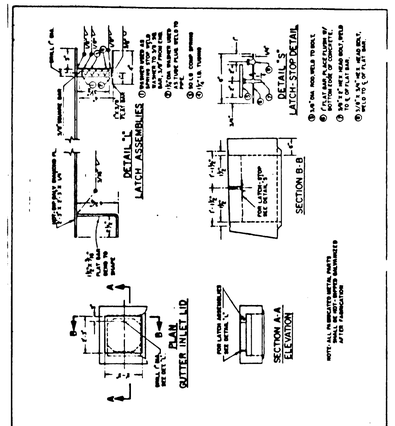
CITY OF WEST LINN — BLOWOFF

DRAWN BY DDF DATE 5-20-87
CHECKED BY — DATE —
APPROVED BY Earl Reed DATE 5-27-87
DWG. NO. BO - 301



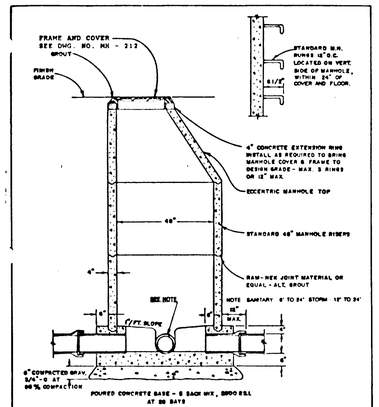
CITY OF WEST LINN — GUTTER INLET-2½A

DRAWN BY DDF DATE 5-20-87
CHECKED BY — DATE —
APPROVED BY Earl Reed DATE 5-27-87
DWG. NO. GI - 214



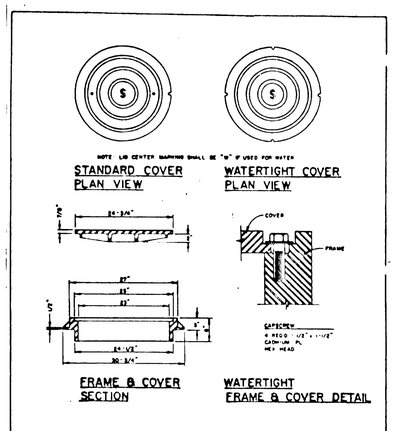
CITY OF WEST LINN — GUTTER INLET COVER

DRAWN BY DDF DATE 5-20-87
CHECKED BY DLL DATE 5-22-87
APPROVED BY Earl Reed DATE 5-27-87
DWG. NO. GI - 215



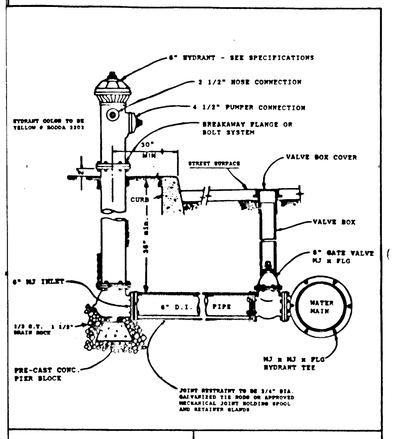
CITY OF WEST LINN — STANDARD MANHOLE

DRAWN BY DDF DATE 5-20-87
CHECKED BY DLL DATE 5-22-87
APPROVED BY Earl Reed DATE 5-27-87
DWG. NO. MH - 209



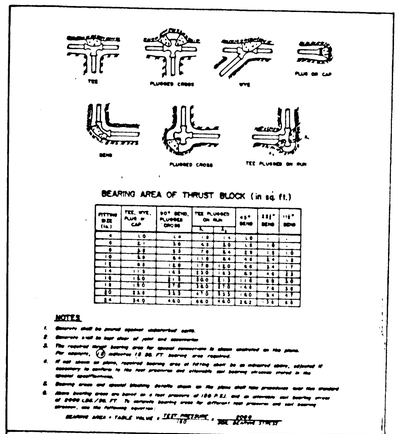
CITY OF WEST LINN — MANHOLE FRAME & COVER

DRAWN BY DDF DATE 5-20-87
CHECKED BY — DATE —
APPROVED BY Earl Reed DATE 5-27-87
DWG. NO. MH - 212



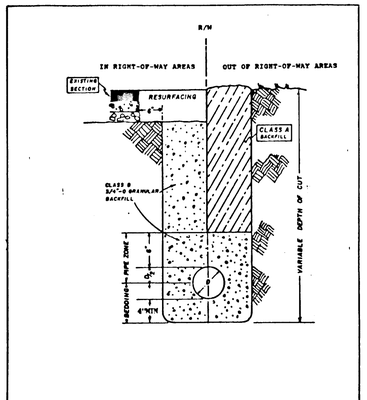
CITY OF WEST LINN — FIRE HYDRANT

DRAWN BY DDF DATE 5-20-87
CHECKED BY WSH DATE 5-27-87
APPROVED BY Earl Reed DATE 5-27-87
DWG. NO. FH - 300



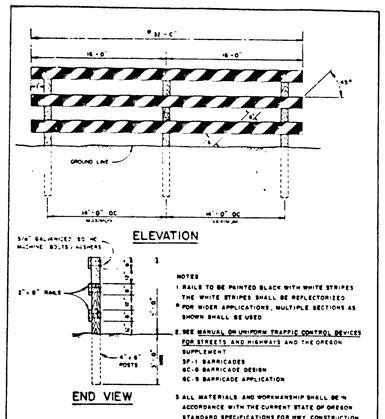
CITY OF WEST LINN — THRUST BLOCKING

DRAWN BY DDF DATE 5-20-87
CHECKED BY — DATE —
APPROVED BY Earl Reed DATE 5-27-87
DWG. NO. TB - 302



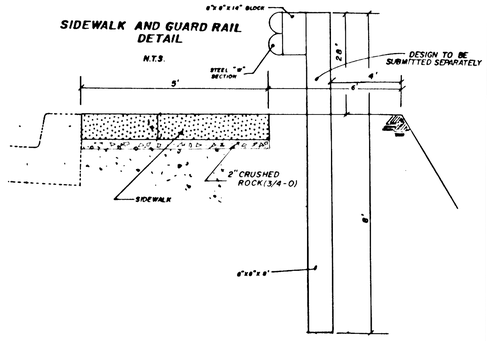
CITY OF WEST LINN — PIPE BEDDING AND BACKFILL DETAILS

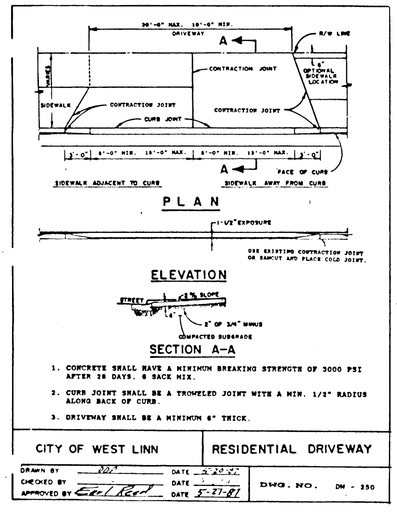
DRAWN BY DDF DATE 5-20-87
CHECKED BY DLL DATE 5-22-87
APPROVED BY Earl Reed DATE 5-27-87
DWG. NO. PB - 280



CITY OF WEST LINN — STREET BARRICADE - TYPE III

DRAWN BY DDF DATE 5-20-87
CHECKED BY — DATE —
APPROVED BY Earl Reed DATE 5-27-87
DWG. NO. SB - 276

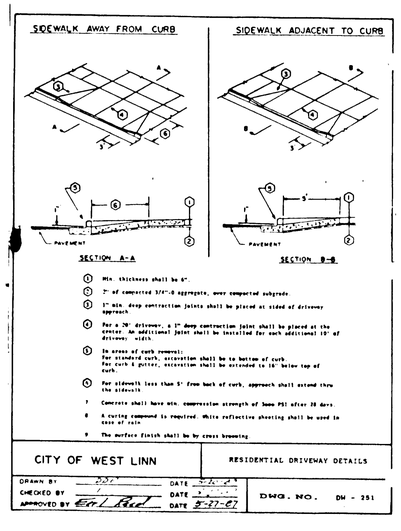




1. CONCRETE SHALL HAVE A MINIMUM BREAKING STRENGTH OF 3000 PSI AFTER 28 DAYS. 6 SACK MIX.
2. CURB JOINT SHALL BE A TROWELED JOINT WITH A MIN. 1/2" RADIUS ALONG BACK OF CURB.
3. DRIVEWAY SHALL BE A MINIMUM 6" THICK.

CITY OF WEST LINN — RESIDENTIAL DRIVEWAY

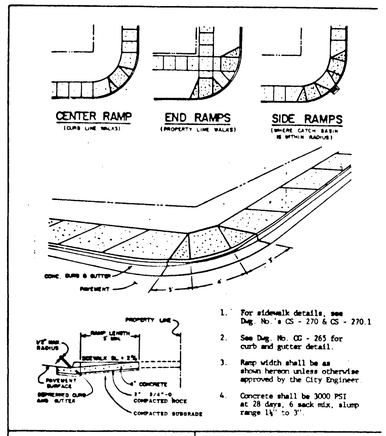
DRAWN BY DDF DATE 5-20-87
CHECKED BY — DATE —
APPROVED BY Earl Reed DATE 5-27-87
DWG. NO. DM - 350



1. Min. thickness shall be 6".
2. 2" of compacted 3/4"-0 aggregate, over compacted subgrade.
3. 1" min. deep contraction joints shall be placed at sides of driveway approach.
4. For a 20' driveway, a 1" deep contraction joint shall be placed at the center. An additional joint shall be installed for each additional 10' of driveway width.
5. In areas of curb removal:
   For standard curb, excavation shall be to bottom of curb.
   For curb & gutter, excavation shall be extended to 18" below top of curb.
6. For sidewalk less than 5' from back of curb, approach shall extend thru the sidewalk.
7. Concrete shall have min. compression strength of 3000 PSI after 28 days.
8. A curing compound is required. White reflective sheeting shall be used in lieu of rain.
9. The surface finish shall be by cross brooming.

CITY OF WEST LINN — RESIDENTIAL DRIVEWAY DETAILS

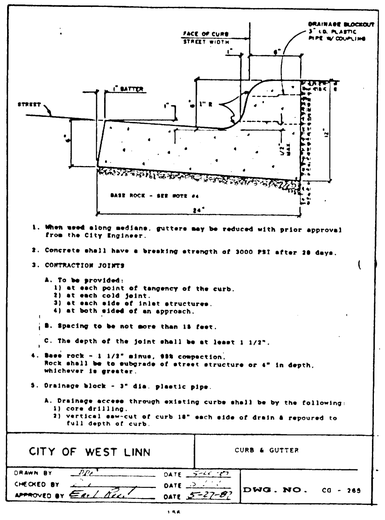
DRAWN BY DDF DATE 5-20-87
CHECKED BY — DATE —
APPROVED BY Earl Reed DATE 5-27-87
DWG. NO. DM - 351



1. For sidewalk details, see Dwg. No. 1 & CS - 270 & CS - 270.1
2. See Dwg. No. CG - 265 for curb and gutter detail.
3. Ramp width shall be as shown hereon unless otherwise approved by the City Engineer.
4. Concrete shall be 3000 PSI at 28 days, 6 sack mix, slump range 1½" to 3".

CITY OF WEST LINN — SIDEWALK RAMP

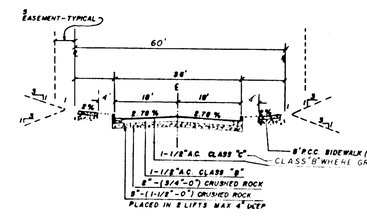
DRAWN BY DDF DATE 5-20-87
CHECKED BY — DATE —
APPROVED BY Earl Reed DATE 5-27-87
DWG. NO. CS - 271



1. When used along medians, gutters may be reduced with prior approval from the City Engineer.
2. Concrete shall have a breaking strength of 3000 PSI after 28 days.
3. CONTRACTION JOINTS
   A. To be provided:
      1) at each point of tangency of the curb.
      2) at each cold joint.
      3) at each side of inlet structures.
      4) at both sided of an approach.
   B. Spacing to be not more than 15 feet.
   C. The depth of the joint shall be at least 1 1/3".
4. Base rock - 1 1/3" minus, 95% compaction. Rock shall be to subgrade of street structure or 4" in depth, whichever is greater.
5. Drainage block - 3" dia. plastic pipe.
   A. Drainage access through existing curbs shall be by the following:
      1) core drilling.
      2) vertical saw-cut of curb 18" each side of drain & repoured to full depth of curb.

CITY OF WEST LINN — CURB & GUTTER

DRAWN BY DDF DATE 5-20-87
CHECKED BY — DATE —
APPROVED BY Earl Reed DATE 5-27-87
DWG. NO. CG - 265



STREET SECTIONS - NTS

AS CONSTRUCTED
1-17-90

DESIGNED: N.H.
RESOLVED: N/A
DRAWN:
CHECKED: N.H.
DATE: 11-21-86
SCALE: N.T.S.
FILE NO.: 88-55
REVISED:
APPROVED:

PHASE IV
BARRINGTON HEIGHTS
WEST LINN, OREGON

DETAILS

LUD Lulls & assoc., inc.
ENGINEERS · SURVEYORS · LAND PLANNING · 4230 N.E. FREMONT STREET · PORTLAND, OREGON · 97213 · PHONE (503) 284-5896 · FACSIMILE (503) 284-8530