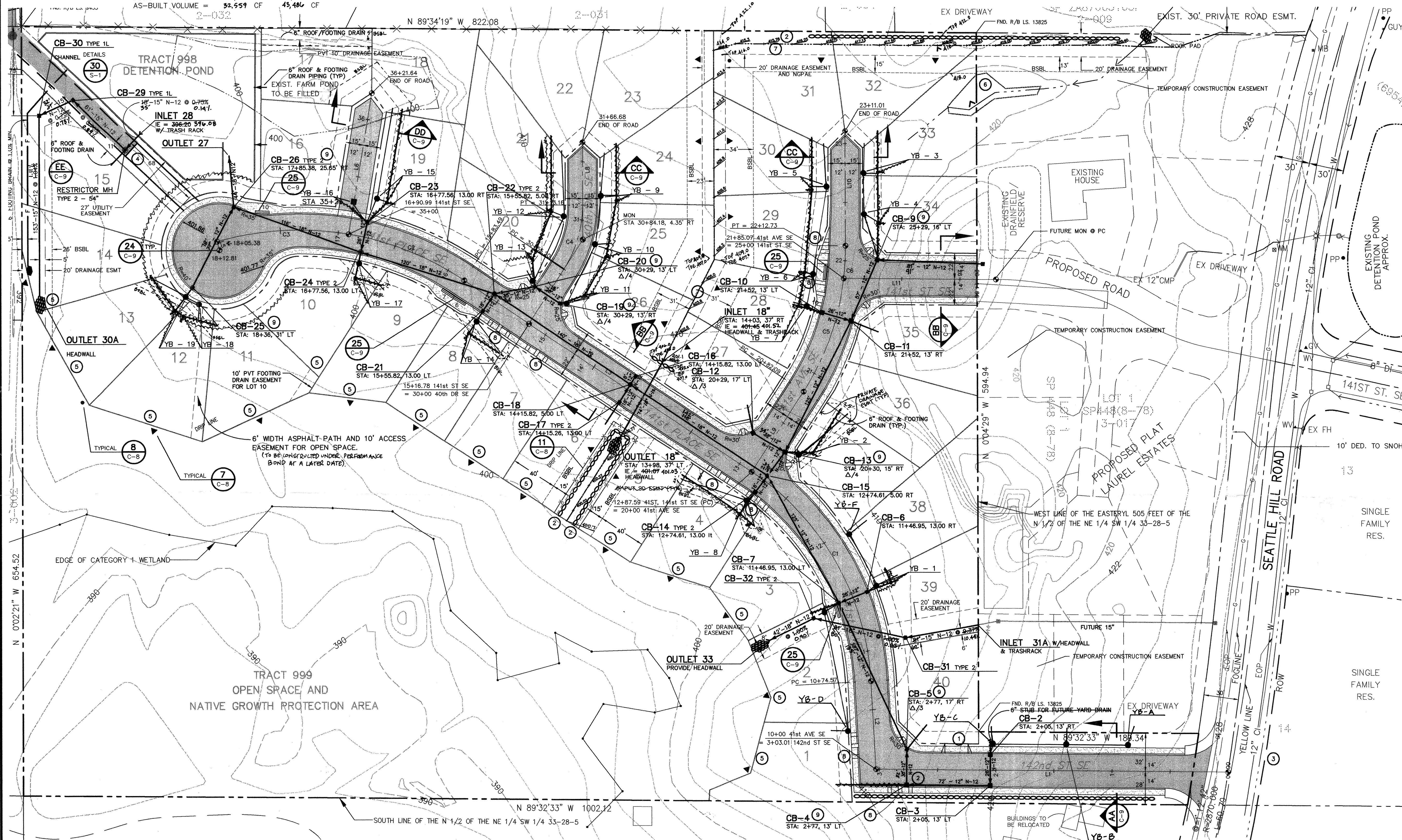


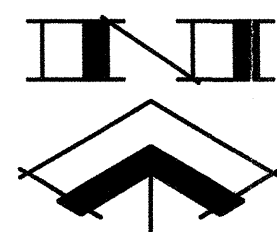
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1.DWG (VIEW "PLO

TRACT 998
DETENTION POND



- 1 CONSTRUCT DRIVEWAY APRON AS DIRECTED BY OWNER
- 2 DISCHARGE POINT FOR RETAINING WALL FOOTING DRAINS
- 3 CONTRACTOR TO OBTAIN LAKE CLOSURE PERMIT FOR ANY WORK WITHIN SEATTLE HILL ROAD RIGHT-OF-WAY
- 4 CONSTRUCT 15' WIDE PAVED ACCESS TO RESTRICTOR MANHOLE
- 5 FOOTING DRAINS (LOT 1-14) SHALL BE PIPED TO SOUTH-WESTERLY EDGE OF PROPERTY AT TIME OF HOUSE CONSTRUCTION
- 6 INSTALL TEMPORARY CULVERT REMOVE AT TIME OF LAUREL ESTATES CONSTRUCTION WHEN DITCH ALIGNMENT COMPLETE
- 7 RELOCATED STREAM
- 8 PROVIDE HANDICAP RAMPS (DROP SIDEWALK)
- 9 INSTALL THRU CURB INLETS



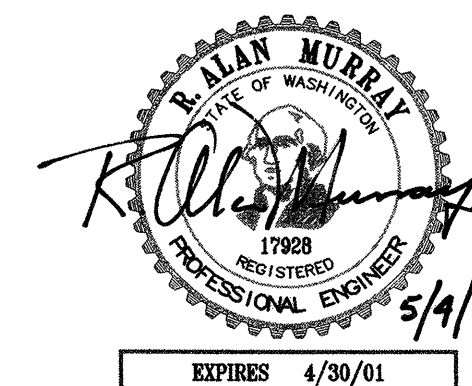
SCALE: 1" = 40'

DATUM: N.G.V.D. 1929 (MEAN SEA LEVEL)
BENCH: CHISELED "X" IN S.E. BOLT OF TRAFFIC
SIGNAL BASE AT N.W. CORNER 132ND ST. S.E.
AND SEATTLE HILL ROAD, SNOHOMISH
COUNTY, B.M. 393/769, ELEV.= 437.25

**NOTE: TOPOGRAPHIC SURVEY INFORMATION
SUPPLIED BY: TRI-COUNTY LAND SURVEYING**
BOUNDARY INFORMATION FROM SURVEY BY WILLIAM ROBERTS
& ASSOCIATES, JOB NO.3476. BASIS OF BEARING NORTH LINE
OF THE S.W. 1/4 OF SECTION 33-28-5 BEING N 89 34'19" W
RIGHT-OF-WAY FOR SEATTLE HILL ROAD ESTABLISHED FROM
PLAT OF THOMAS LAKE ESTATES VOL. 40, PG. 266.

CURVE	RADIUS	LENGTH	DELTA
C1	228.43'	213.02'	53°25'50"
C2	258.92'	107.50'	23°47'17"
C3	258.92'	114.41'	25°19'00"
C4	100.00'	57.96'	33°12'28"
C5	225.00'	102.99'	26°13'31"
C6	225.00'	27.66'	07°02'34"

LINE	DIRECTION	DISTANCE
L1	N 89°32'33" W	303.01'
L2	N 03°13'28" W	74.57'
L3	N 56°37'15" W	229.20'
L4	N 56°37'15" W	66.70'
L5	N 15°43'31" W	7.42'
L6	N 09°30'23" E	121.64'
L7	N 33°07'57" E	55.20'
L8	N 00°04'29" W	53.53'
L9	N 33°07'57" E	82.09'
L10	N 00°08'07" W	98.28'
L11	N 09°34'10" W	114.67'



US POSTAL SERVICE
APPROVED FOR MB LOCATION
DIGITIZED SIGNATURE, ORIGINAL IN PROJECT FILE
US POSTMASTER
DATE 8/14/97

WE HEREBY DECLARE ALL IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE AS-BUILTS PLANS.

BY: R. C. Munnery 2-15-00
Project Engineer Date

BY: _____ Date
Project Surveyor

BY: Chad 2-15-00
Project Developer Date

SNOHOMISH COUNTY PLANNING & DEVELOPMENT SERVICES

APPROVED FOR GRADING

By: Randolph R. Knight 6/2/99

R/W Permit No. 98103429 UP

SEATTLE HILL ESTATES
3328005-3-001-0007 95 110056
AS-BUILT ROAD & STORM DRAINAGE PLAN

Developer: David Maxwell, Harbour Homes, 1914 N 34th ST, Suite 500, Seattle, WA 98103, Phone 206-547-8213

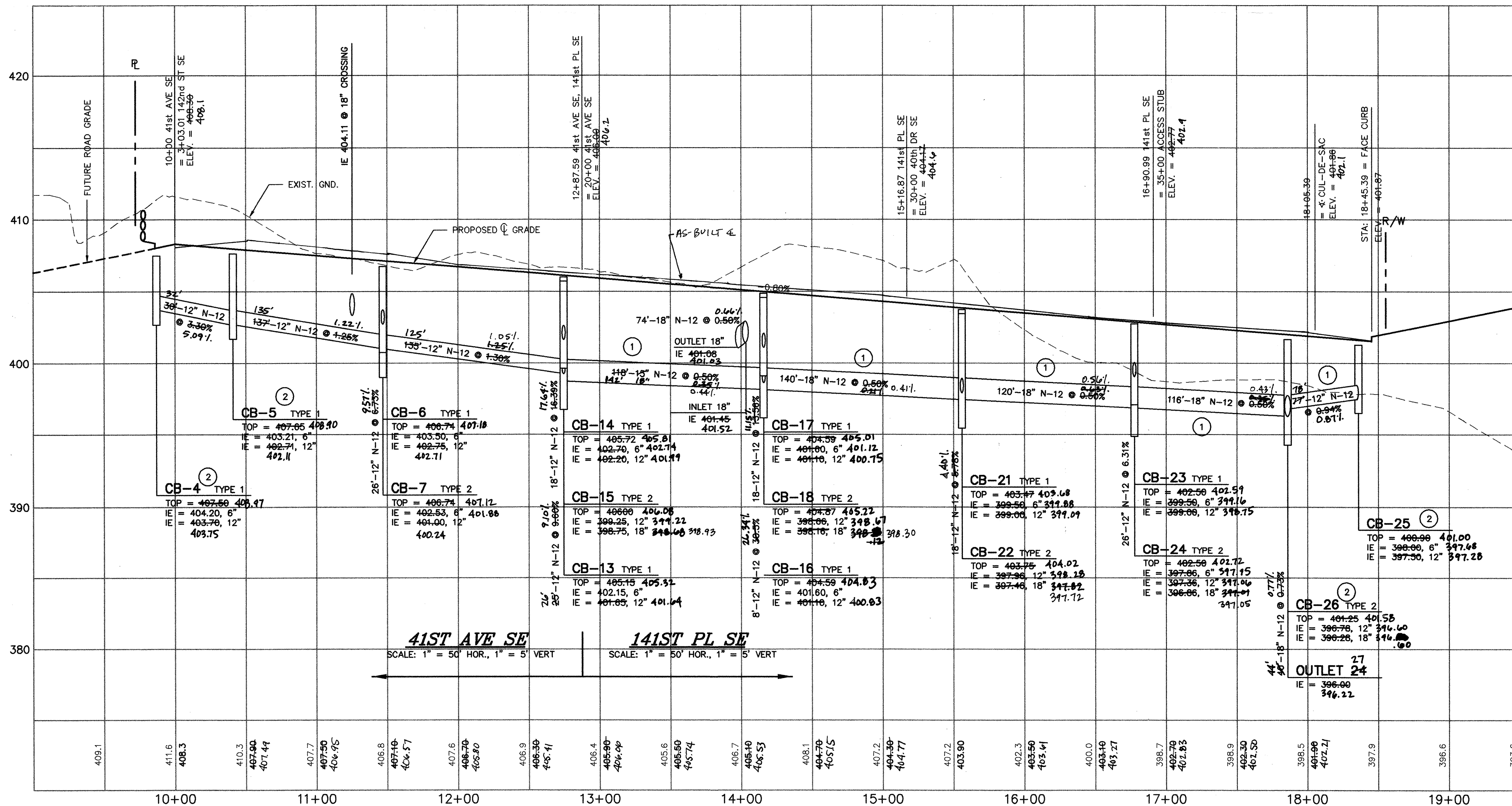
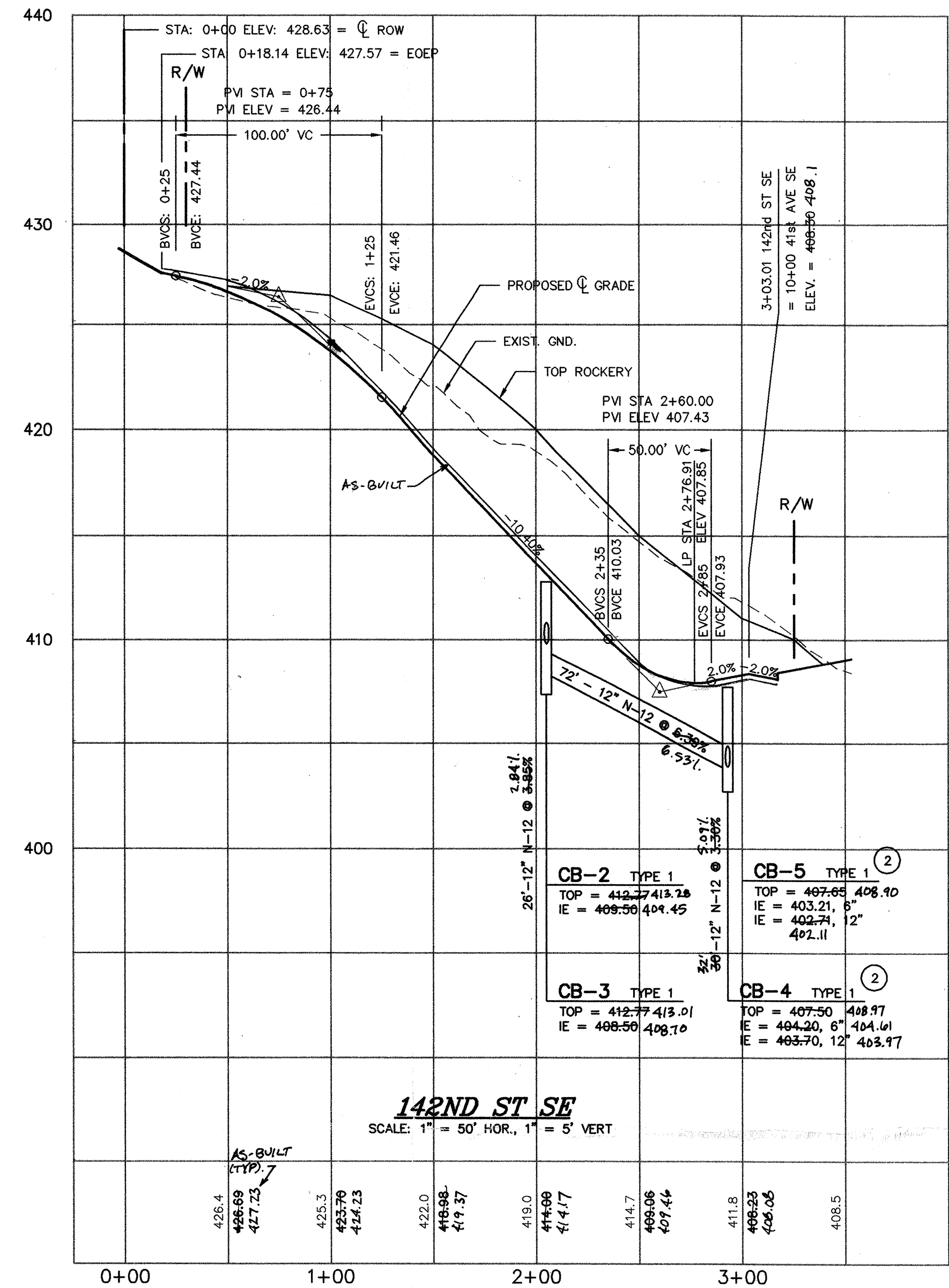
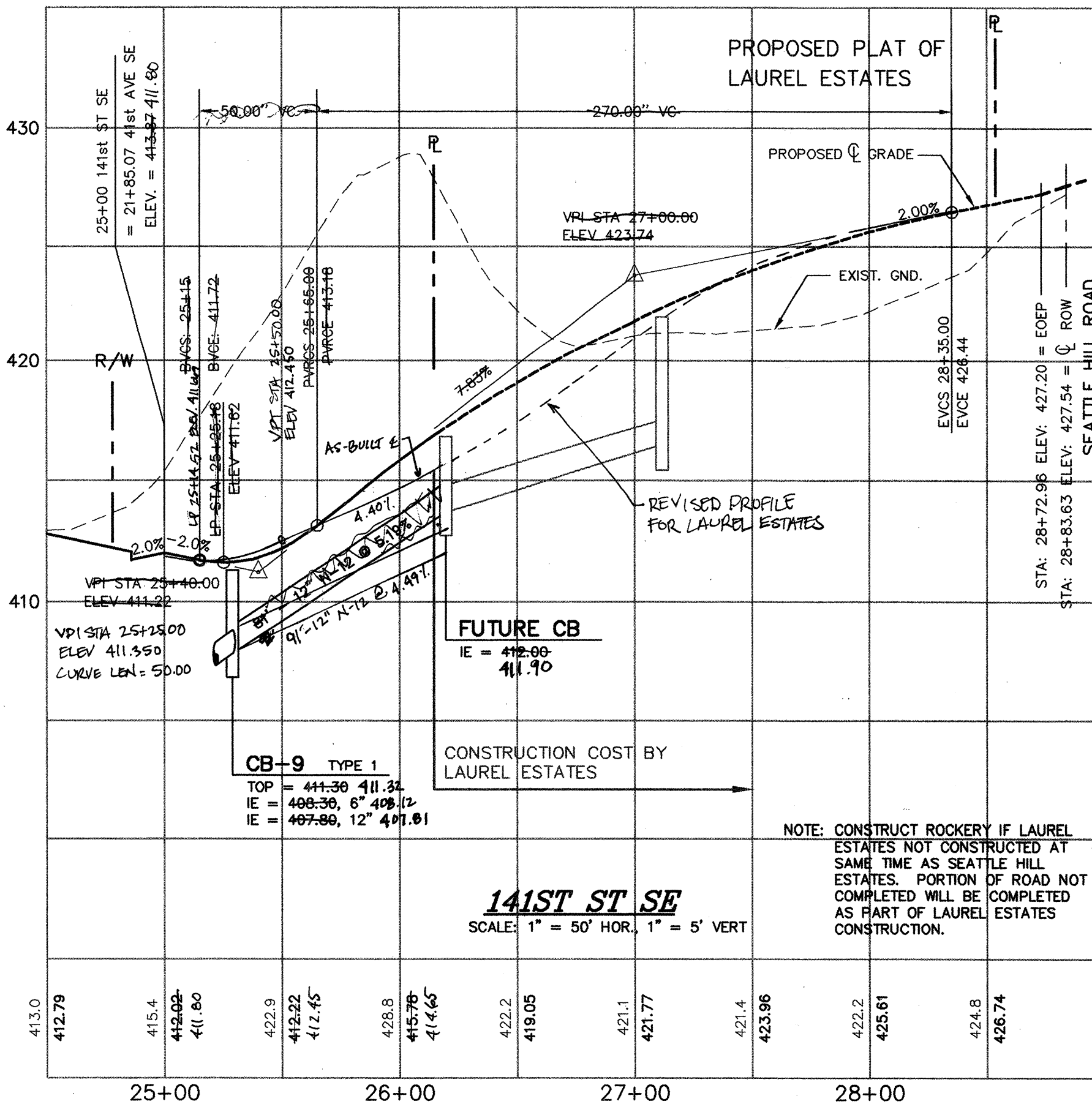
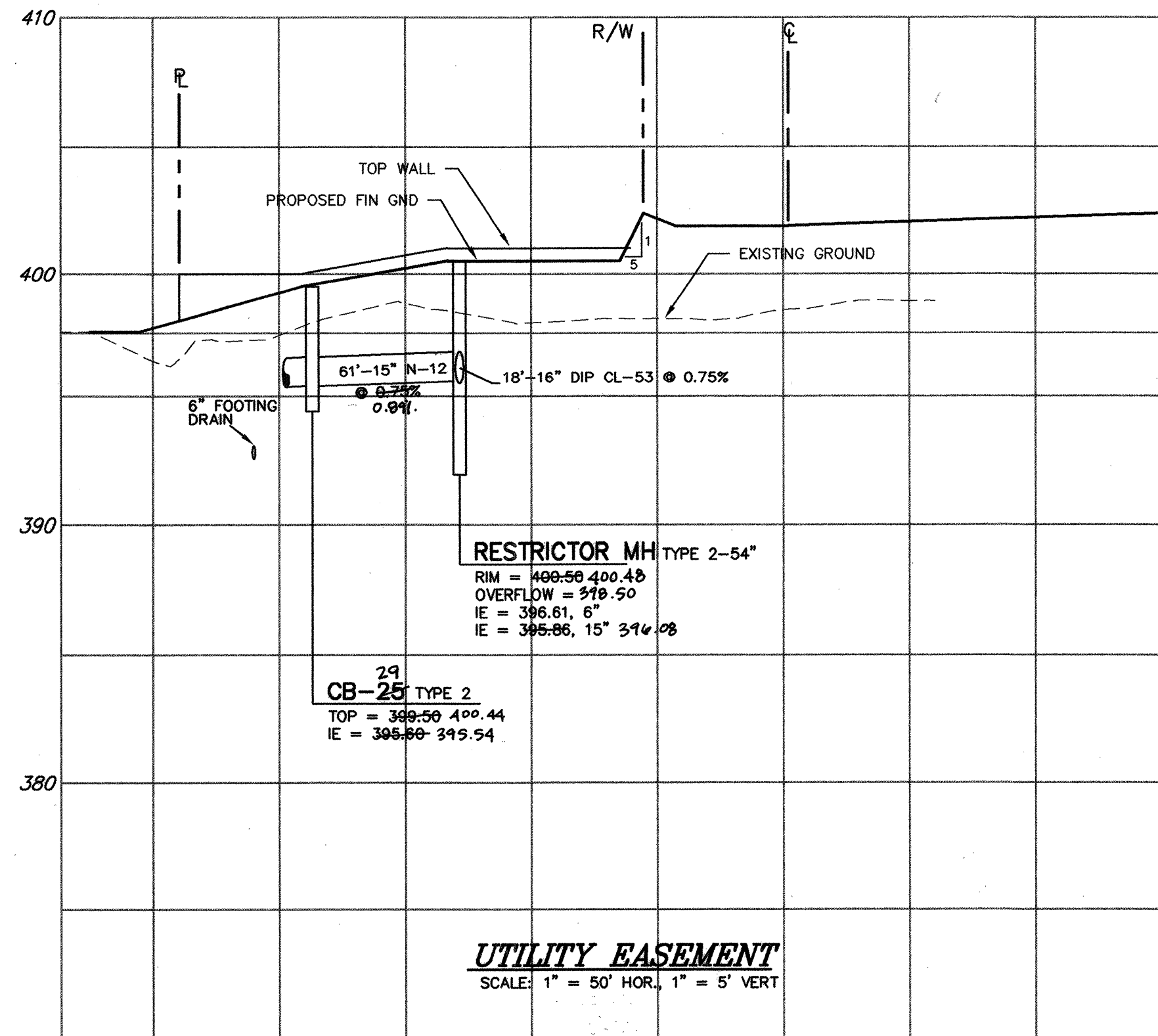
**Murray -
Tobiason, Inc.**
Planning, Civil & Structural Engineering • Landscape Architecture
626 • 12th Street Southwest, Suite 107 • Everett, Washington 98204-6368

Designed by: RAM		Drawn by: ROM		Checked by: RAM		Issue Date: 11-24-97	
No.	ISSUE D	Revision	By	Date			
1	PER SICHOMISH COUNTY COMMENTS		ROM	03-30-98			
2	PER SICHOMISH COUNTY COMMENTS		KAO	03-01-99			
3	PER SICHOMISH COUNTY COMMENTS		KAO	05-04-99			
4	AS-BUILT		KAO	2-14-20			
5							

Drawing
C-5
of 10 Drawings
Project Number
2090

D:\Veg\2090\Roadprof.dwg Wed May 12 14:45:10 1999 Murray - Tobiason, Inc.

SW. 1/4, SEC. 33, TWP. 28 N, RGE. 5 E., W.M.



CONSTRUCTION NOTES

1. LOW PRESSURE TEST REQUIRED ALL PIPE JOINTS IN RUN.
2. INSTALL THRU CURB INLETS

NOTE: DESIGN SPEED = 25 MPH

WE HEREBY DECLARE ALL IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE AS-BUILTS PLANS.
BY: *R. Murray* 2-15-00
Project Engineer
BY: *[Signature]* 2-15-00
Project Developer

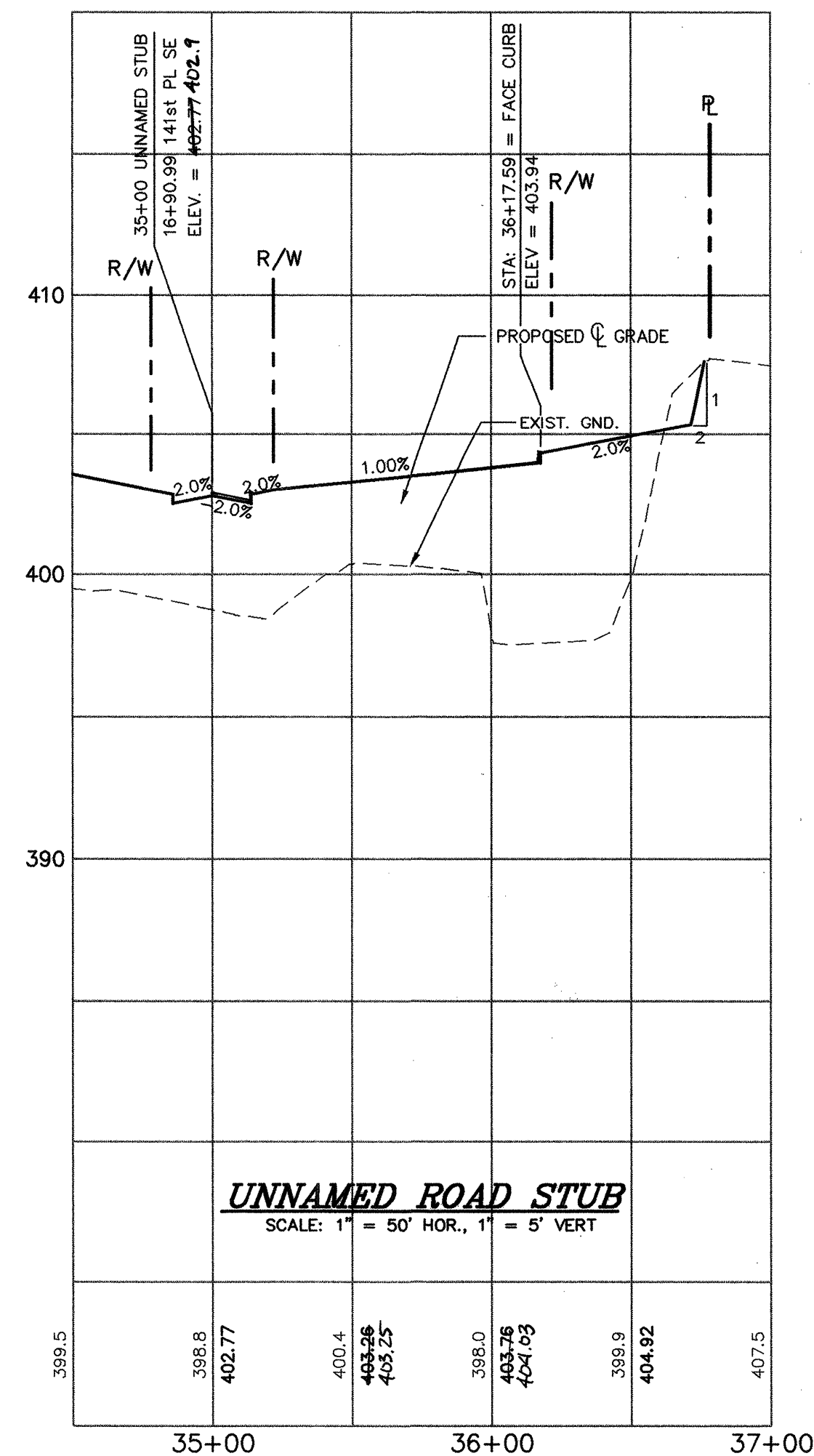
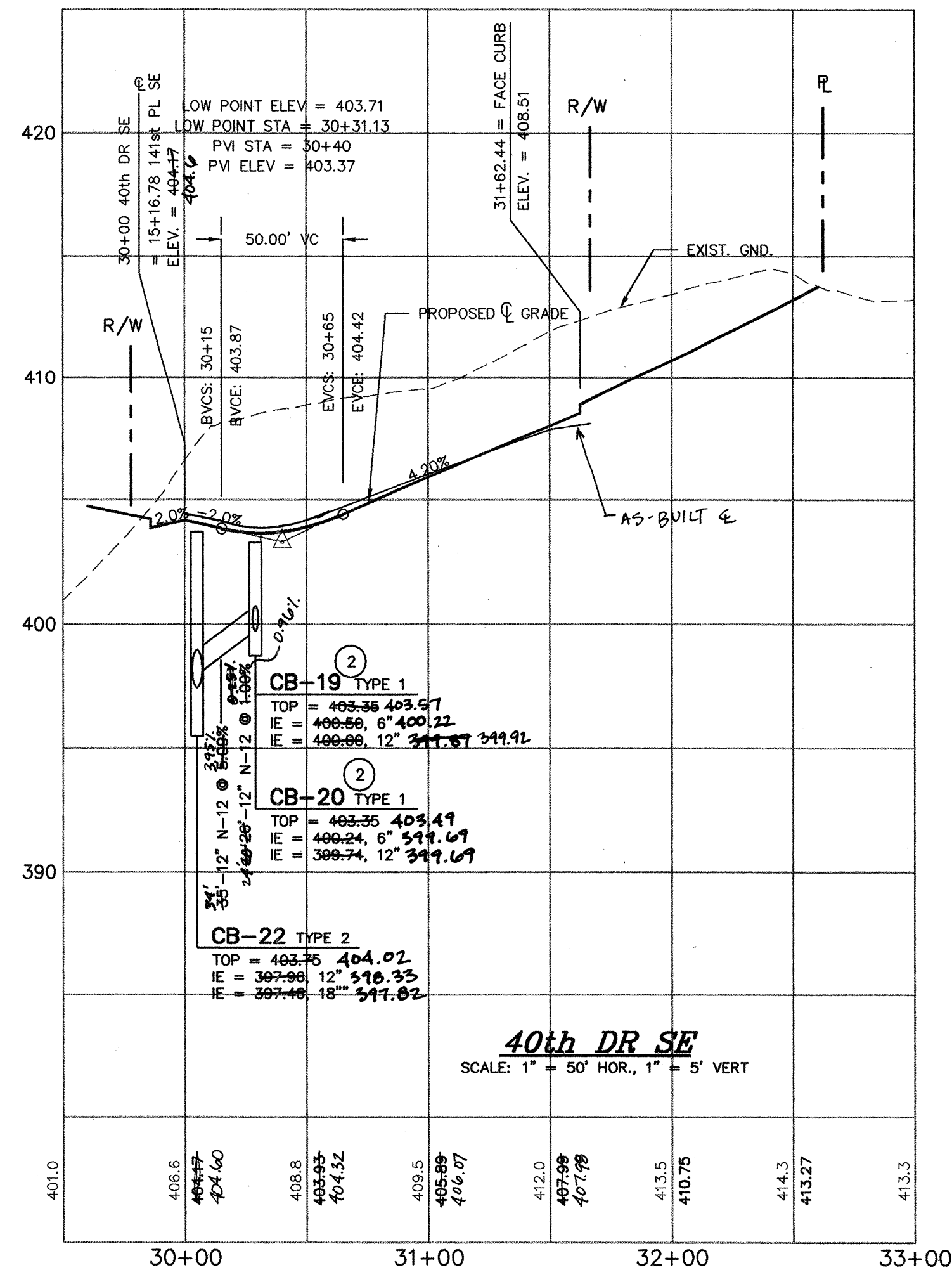
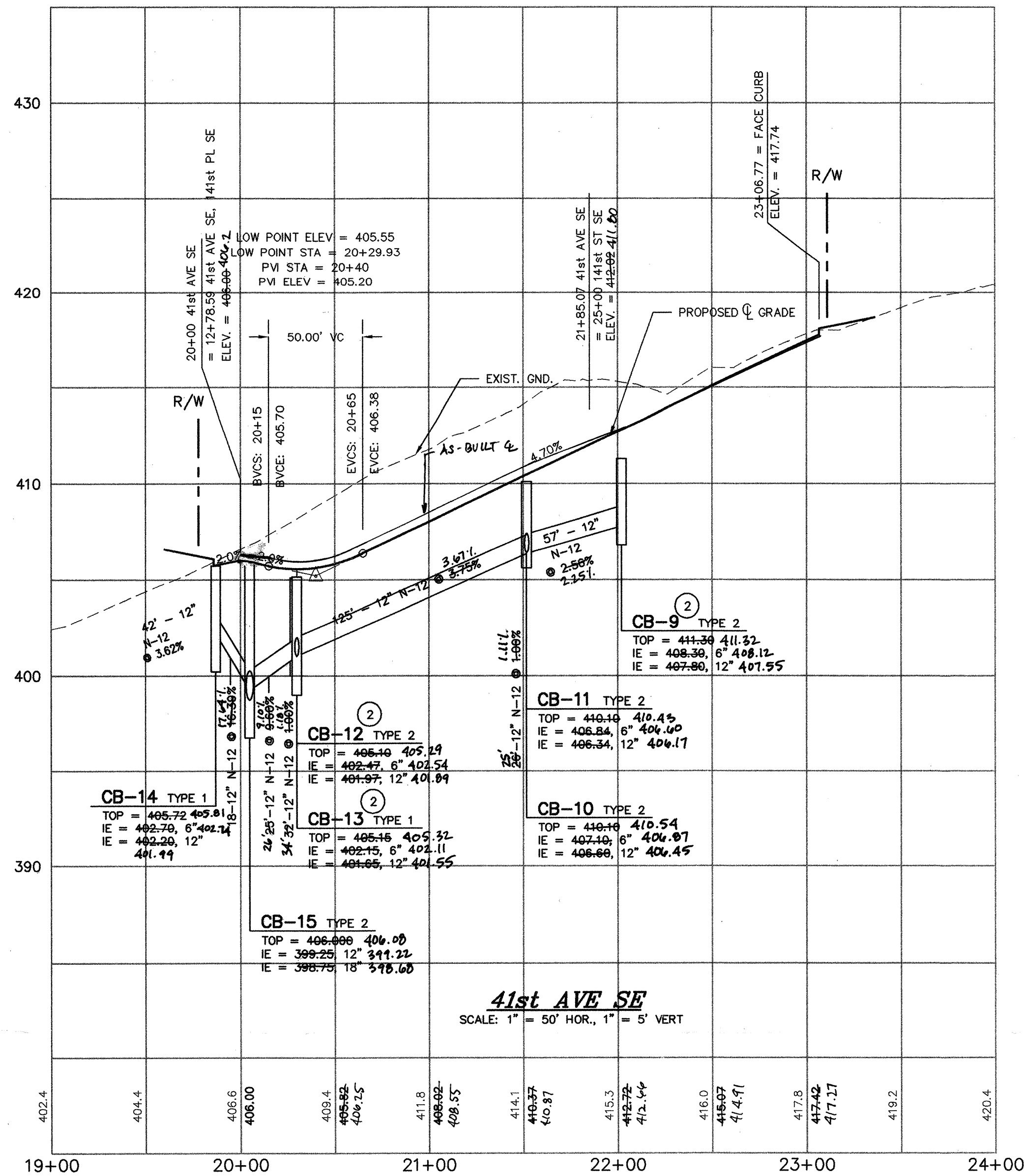
SNOHOMISH COUNTY PLANNING & DEVELOPMENT SERVICES
APPROVED FOR CONSTRUCTION
By: *Randolph R. Shiff* 4/19/99
R/W Permit No. 98103129
EXPIRES 4/30/01

SEATTLE HILL ESTATES
9511056
ROAD AND DRAINAGE PROFILES

MURRAY - TOBIASON, INC.
Planning • Civil Engineering • Landscape Architecture
626 - 128th Street Southwest, Suite 107 • Everett, Washington 98204-8368
Telephone: (425) 513-2500 • Fax: (425) 355-1307

Drawing
C-6
of 10 Drawings
Project Number
2090

Designed by	Drawn by	Checked by	Issue Date
RAM	RAM	RAM	11-24-97
No.	ISSUE	Revised	Date
1	PER SNOHOMISH COUNTY COMMENTS		3-30-98
2	AS-BUILT		2-14-00
3			
4			
5			



AS-BUILT YARD BASIN SCHEDULE

NO.	RIM	INVERT	NO.	RIM	INVERT
1	407.30	405.00	14	403.80	399.85
2	405.40	402.40	15	402.70	399.40
3	415.32	412.50	16	402.60	400.55
4	414.30	411.40	17	402.90	397.80
5	415.30	412.40	18	401.30	398.00
6	411.80	408.00	19	400.60	397.30
7	411.20	406.90	A	425.42	423.50
8	405.70	402.50	B	420.53	417.80
9	406.60	403.75	C	413.70	410.80
10	405.10	402.80	D	408.40	406.00
11	403.80	400.50	E	407.50	402.70
12	405.70	403.55	F	406.60	403.80
13	403.90	400.00			

SUPPLEMENTAL CATCH BASIN INFORMATION

	TOP/RIM	INVERT
INLET 28	-	396.00 396.08
RESTRICTOR MH	406.86 400.48	396.61, 6"
TYPE 2 - 54"	-	396.86, 15" 396.08
CB-29, TYPE 1L	398.66 400.44	398.47 395.54
CB-30, TYPE 1L	406.00 400.16	395.47 395.31
OUTLET 27	-	393.36 394.22
INLET - 31A	-	412.00 411.21
CB-31	406.00 409.16	404.41 404.69
CB-32	407.60 408.52	403.60 404.17
OUTLET 33	-	403.00 403.74

YARD BASIN SCHEDULE (SEE AS-BUILT SCHEDULE BELOW)

NO.	RIM	INVERT	NO.	RIM	INVERT
1	407.00	405.75	11	405.50	403.25
2	405.90	403.65	12	404.30	402.05
3	NOT USED		13	416.00	413.75
4	414.70	412.45	14	403.90	401.65
5	413.70	411.45	15	404.10	401.85
6	412.50	410.25	16	402.85	400.60
7	410.35	408.10	17	402.80	400.65
8	406.10	403.85	18	401.75	399.50
9	406.00	403.75	19	NOT USED	
10	416.50	414.25	20	NOT USED	

NOTE: ALL 6" DRAIN PIPING SHALL BE INSTALLED AT A MINIMUM OF 1% SLOPE OR PROVIDE 2.25' MIN DEPTH AT TERMINATION, WHERE DESIRABLE, OWNER MAY REQUIRE DEEPER INSTALLATIONS FOR WHICH YARD BASINS MUST BE REPLACED WITH 6" PVC CLEAN-OUT WITH CAST IRON COVER.

ROOF FOOTING DRAIN CONNECTION

LOT NO.	DESCRIPTION
1	6" STUB TO CB-4
2	6" STUB TO CB-7
3	6" STUB TO YB-8
4	6" STUB TO YB-8
5	6" STUB TO YB-8
6	6" STUB TO CB-17
7	6" STUB TO YB-14
8	6" STUB TO YB-14
9	6" STUB TO YB-17
10	6" STUB TO YB-17
11	6" STUB TO YB-18
12	6" STUB TO YB-18
13	6" STUB TO YB-19
14	6" STUB TO YB-19
15	6" STUB TO RESTRICTOR MH
16	6" STUB TO DETENTION POND
17	6" STUB TO DETENTION POND
18	6" STUB TO YB-15
19	6" STUB TO YB-15
20	6" STUB TO YB-13
21	6" STUB TO YB-12
22	6" STUB TO YB-12
23	6" STUB TO YB-9
24	6" STUB TO YB-9
25	6" STUB TO YB-10
26	6" STUB TO YB-11
27	6" STUB TO CB-12
28	6" STUB TO YB-7
29	6" STUB TO YB-6
30	6" STUB TO YB-5
31	6" STUB TO YB-5
32	6" STUB TO YB-3
33	6" STUB TO YB-3
34	6" STUB TO YB-4
35	6" STUB TO CB-11
36	6" STUB TO YB-2
37	6" STUB TO YB-2
38	6" STUB TO YB-1
39	6" STUB TO YB-1
40	6" STUB TO CB-5

CONSTRUCTION NOTES

- (2) INSTALL THRU CURB INLETS

NOTE: DESIGN SPEED = 25 MPH

WE HEREBY DECLARE ALL IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE AS-BUILTS PLANS.

BY: *R. W. Murray* 2-15-00 DateBY: *Project Engineer* DateBY: *Project Developer* 2-15-00 Date

SNOHOMISH COUNTY PLANNING & DEVELOPMENT SERVICES

APPROVED FOR CONSTRUCTION

By: *Randolph A. Shultz* 6/6/99

R/W Permit No. 98103129 6P



EXPIRES 4/30/01

AS-BUILTS SEATTLE HILL ESTATES

SEATTLE HILL ESTATES

9511056

ROAD AND DRAINAGE PROFILES

AS-BUILT

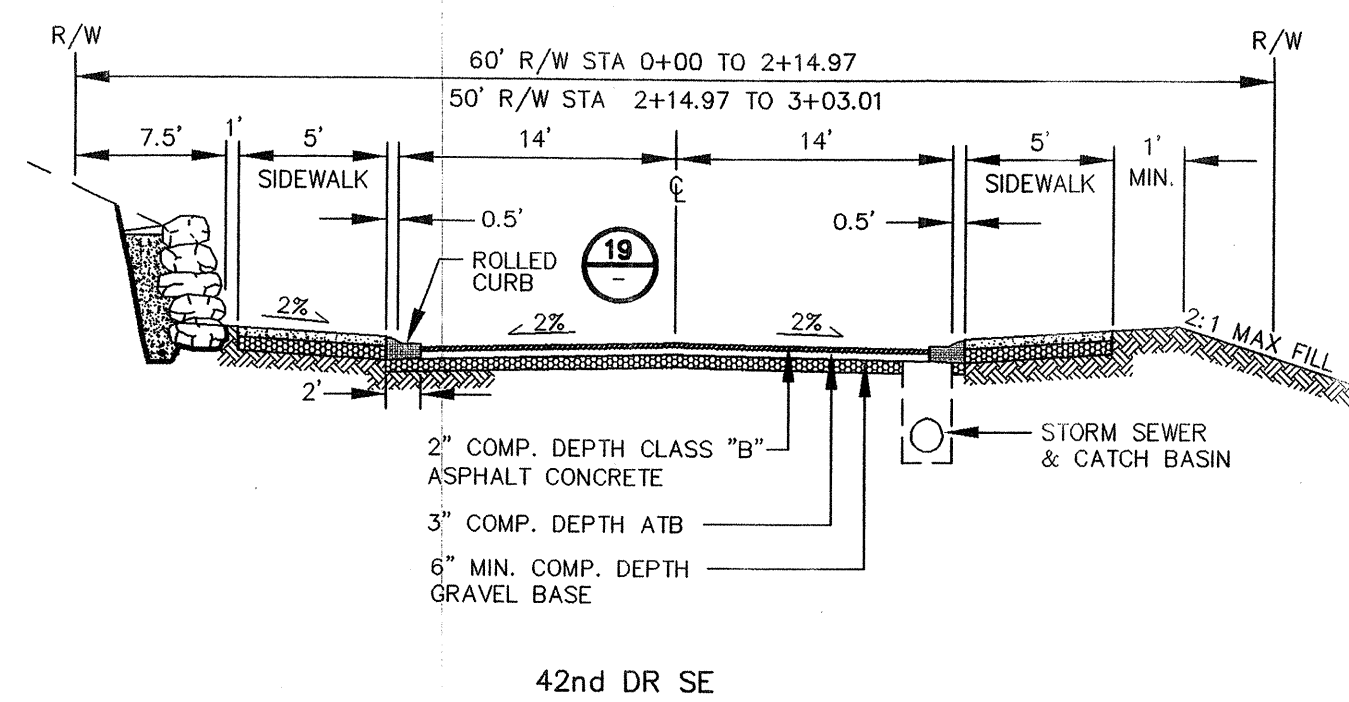
Developer: Mr. David Macwell, Harbour Homes, 1914 N 34th ST, Suite 500, Seattle, WA 98103, Phone: 206-547-8213

Drawing
C-7
of 10 Drawings
Project Number
2090MURRAY - TOBIASON, INC.
Planning • Civil Engineering • Landscape Architecture
626 - 128th Street Southwest, Suite 107 • Everett, Washington 98204-8388
Telephone: (425) 513-2500 • Fax: (425) 355-1307

Issue	By	Date
1	AS-BUILT	2-14-00
2		
3		
4		
5		

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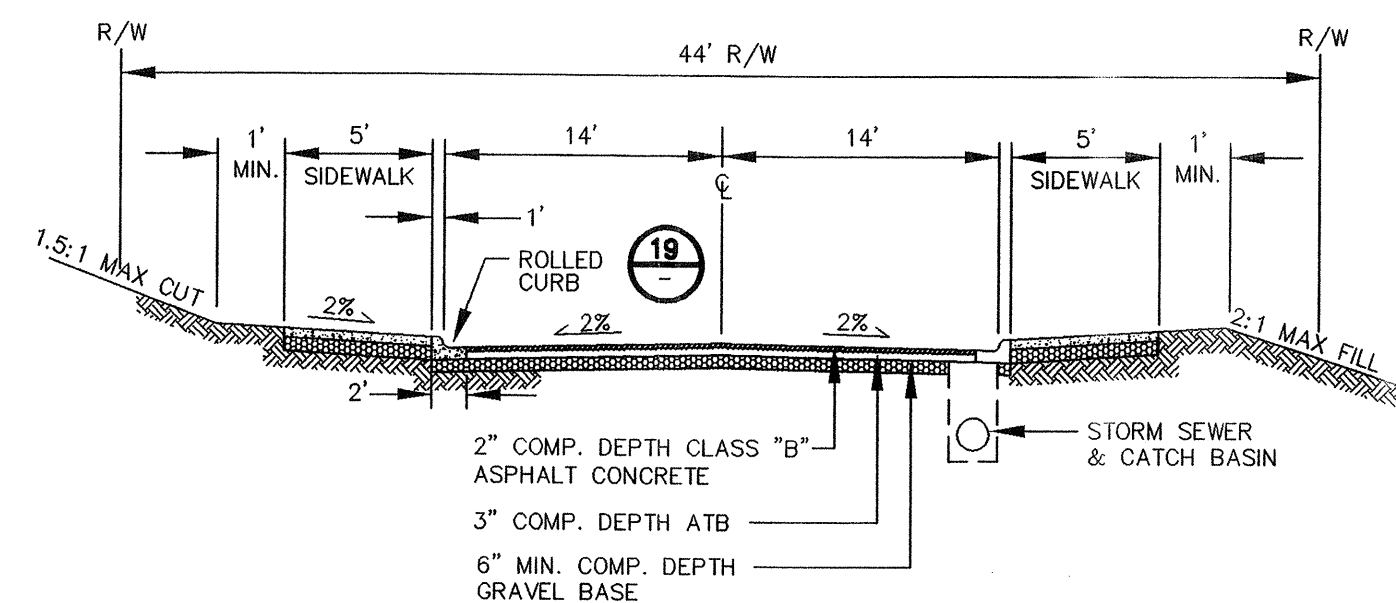
SW. 1/4, SEC. 33, TWP. 28 N., RGE. 5 E., W.M.



SUBCOLLECTOR

N.T.S.

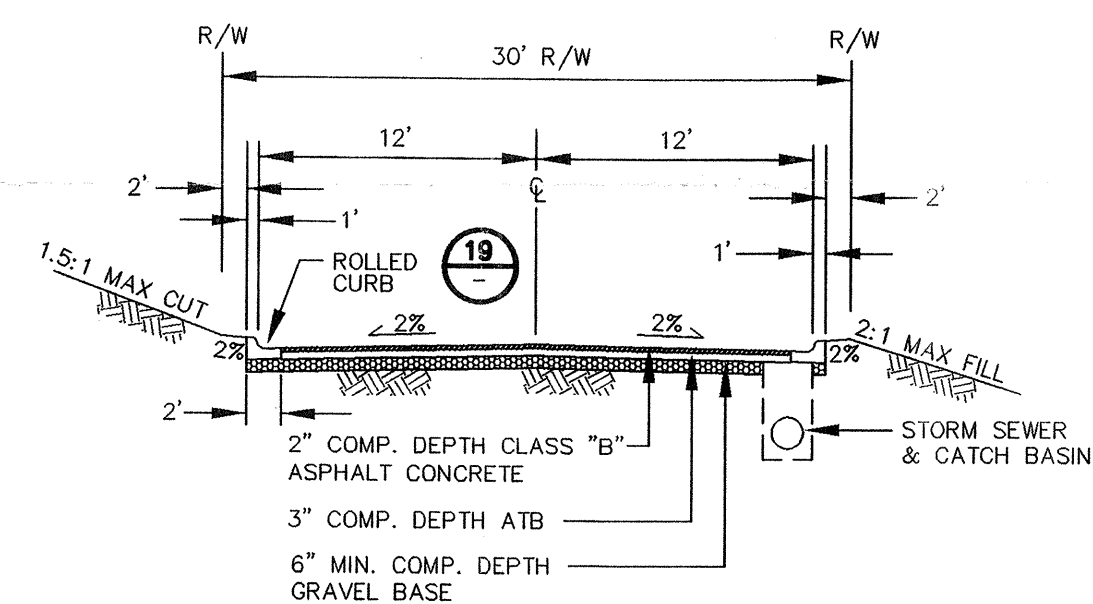
AA
C-5



SUBCOLLECTOR

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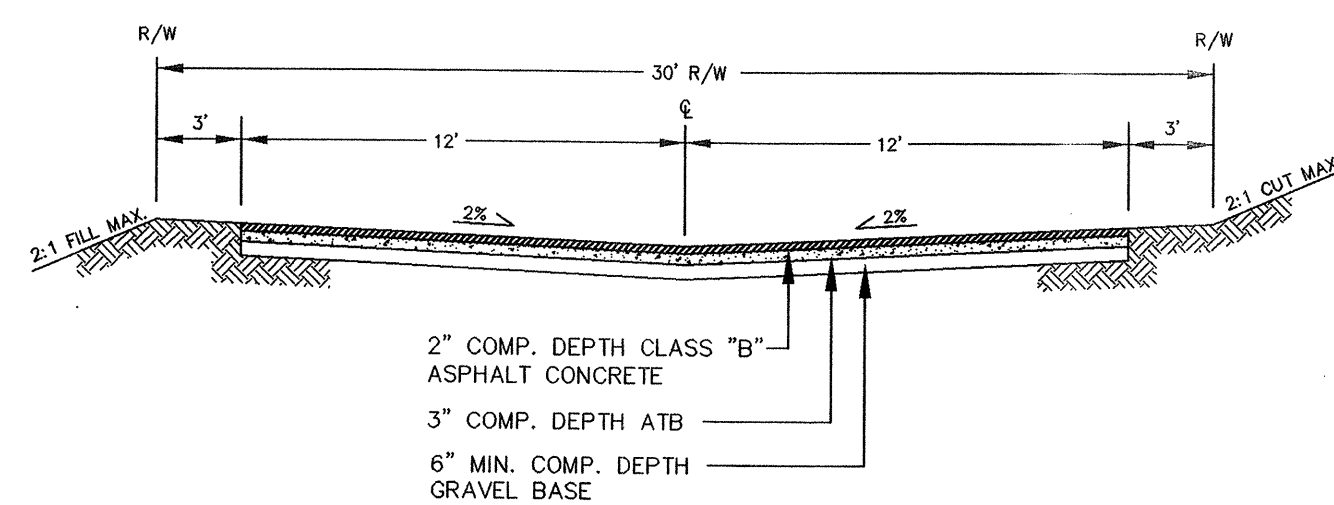
BB
C-5



ACCESS STREET

N.T.S.

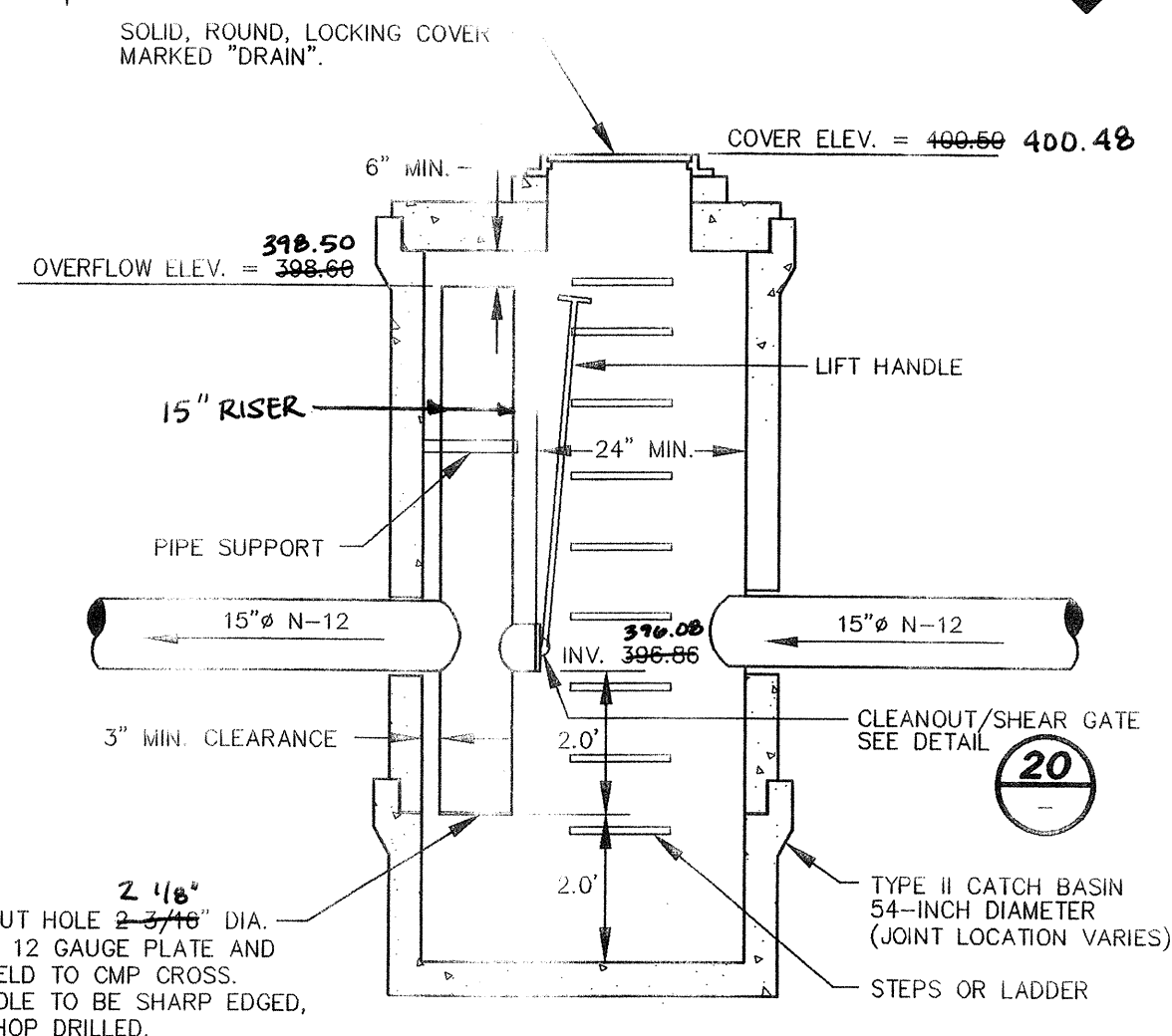
CC
C-5



NON-ARTERIAL (ACCESS STREET)
24' WIDE ROAD SECTION

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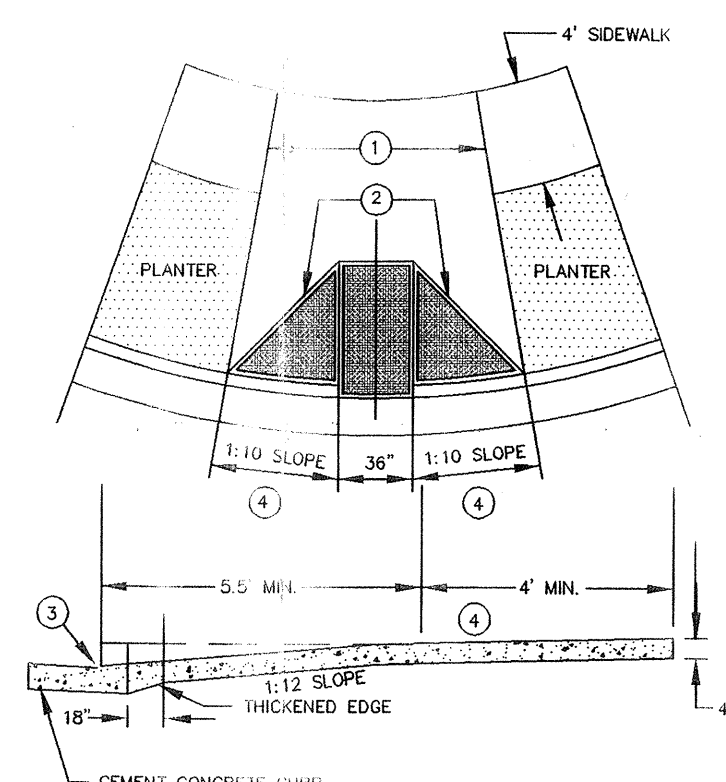
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C-5



RESTRICTOR MANHOLE
TYPE 2 - 54"

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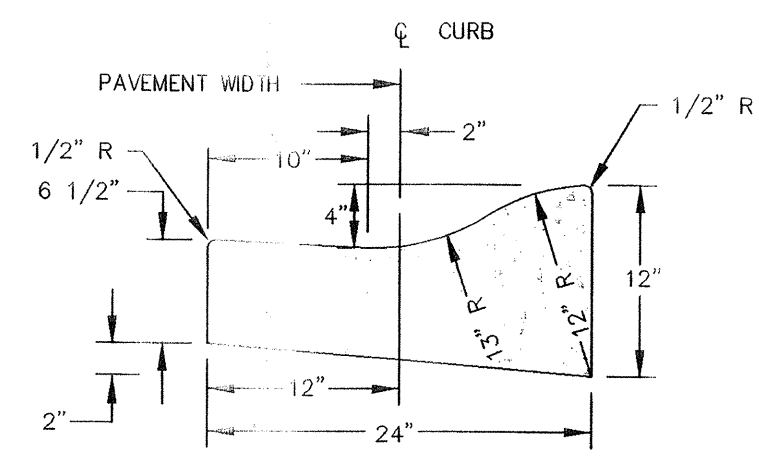
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C-5



TYPE B CURB RAMP

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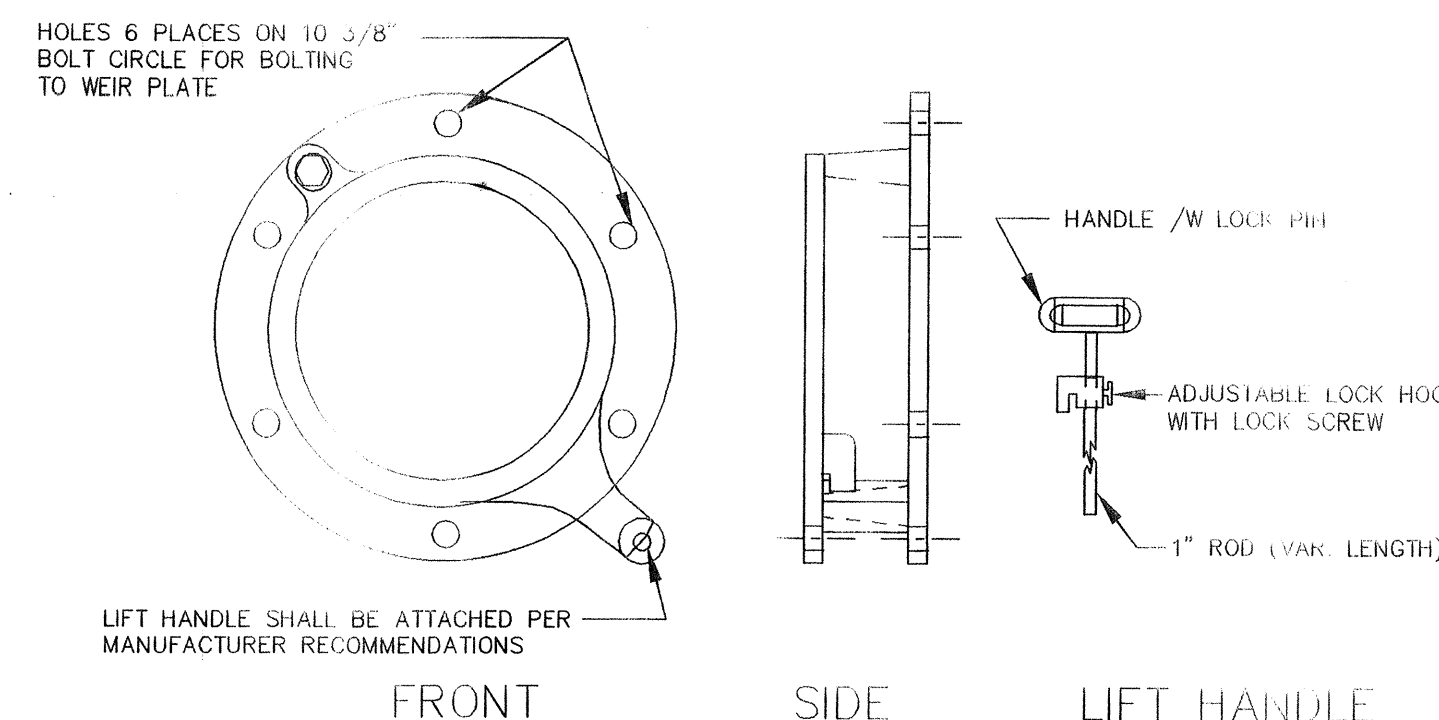
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C-5



ROLLED CURB & GUTTER

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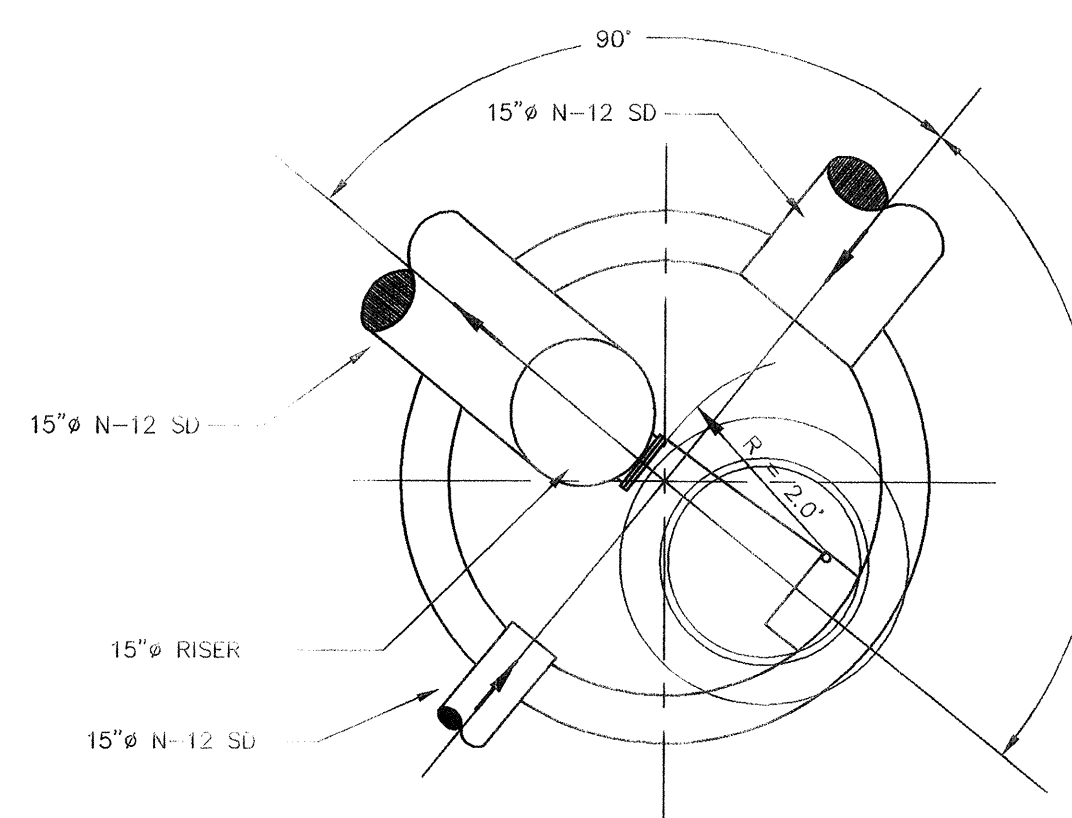
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C-5



CLEANOUT / SHEARGATE

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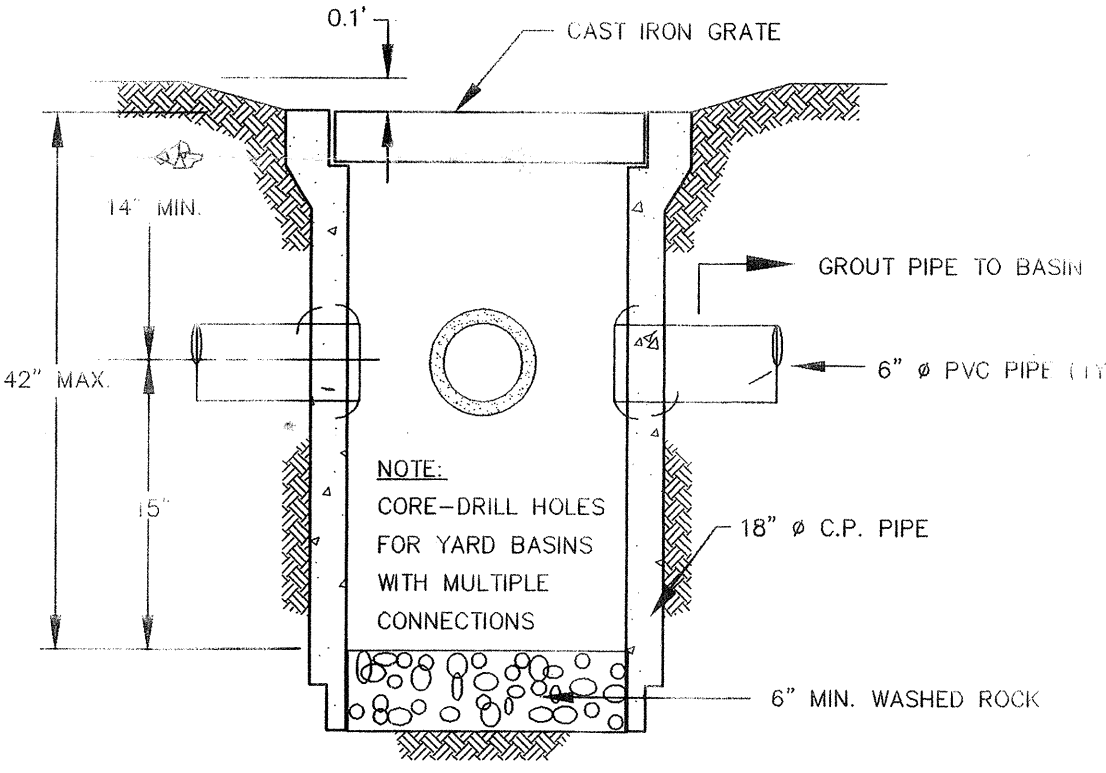
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C-5



CONTROL MANHOLE PLAN

N.T.S.

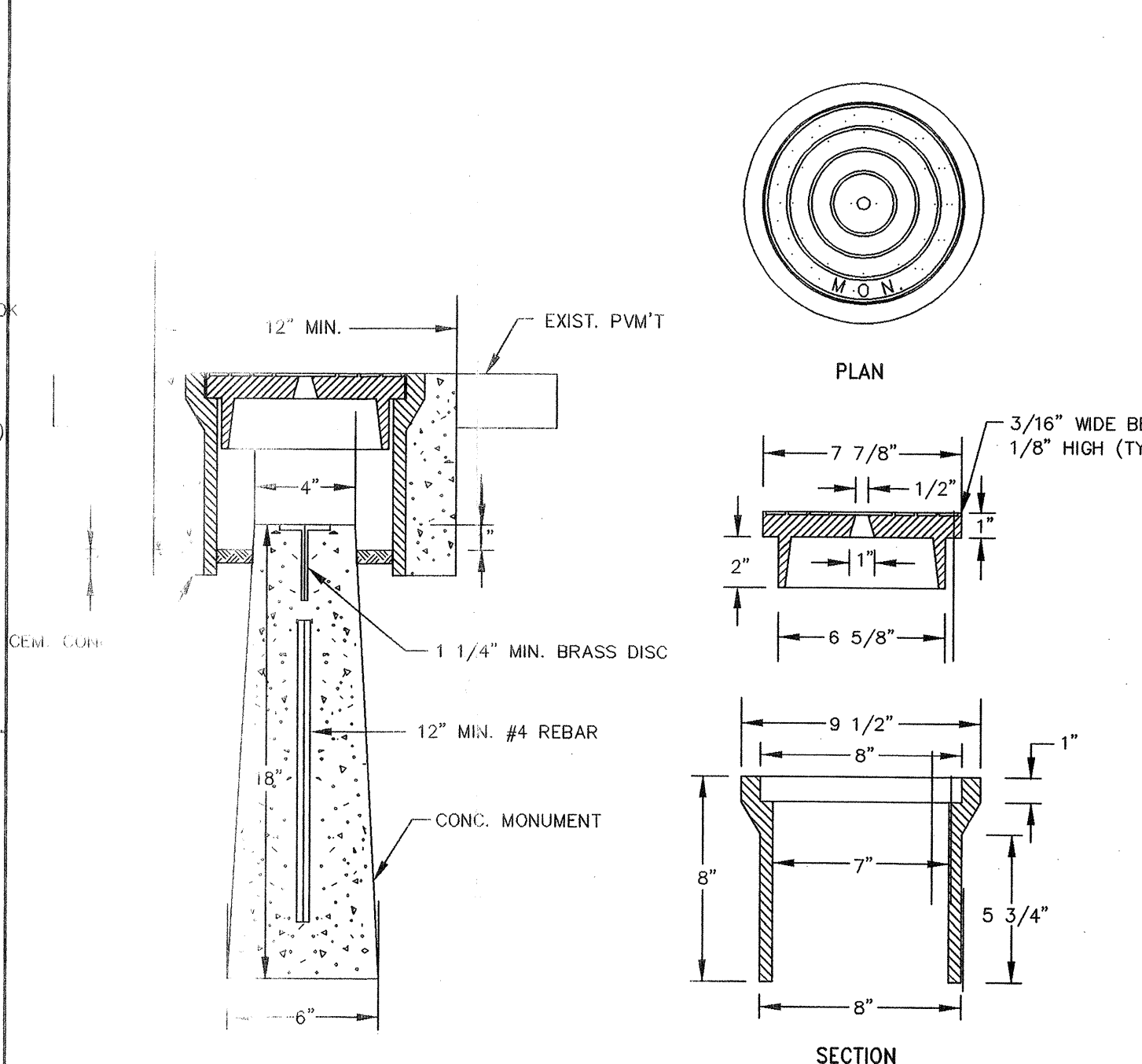
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C-5



YARD BASIN

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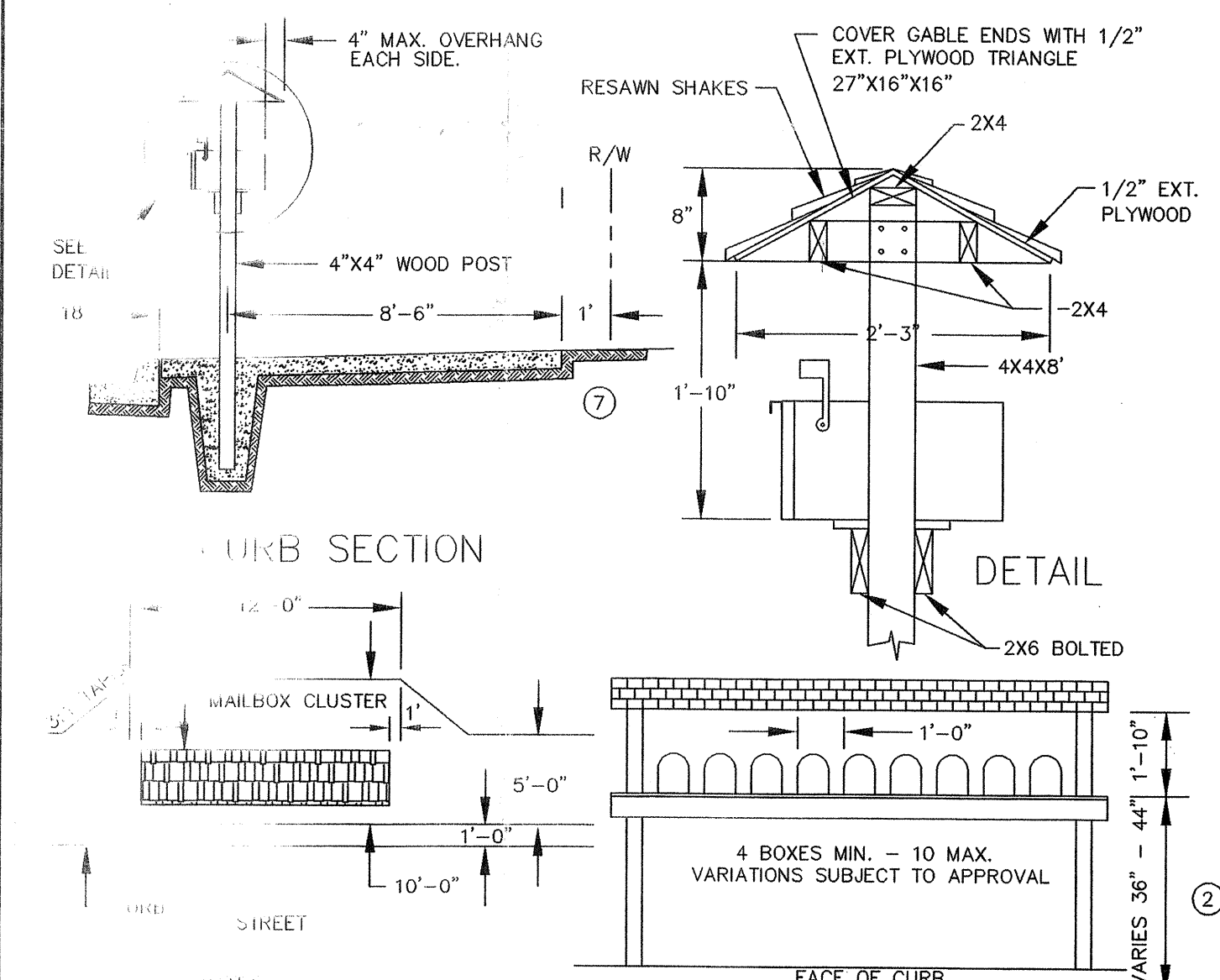
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C-5



MONUMENT CASE & COVER

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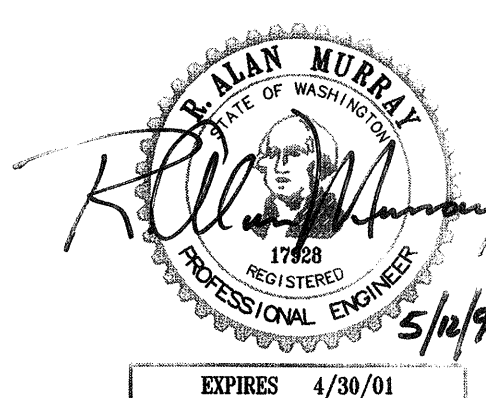
24
C-5



MAILBOX CLUSTER
WOOD STRUCTURE

N.T.S.

25
C-5



WE HEREBY DECLARE ALL IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE AS-BUILTS PLANS.
BY: *[Signature]* 2-15-00 Date
BY: *[Signature]* 2-15-00 Date
BY: *[Signature]* 2-15-00 Date

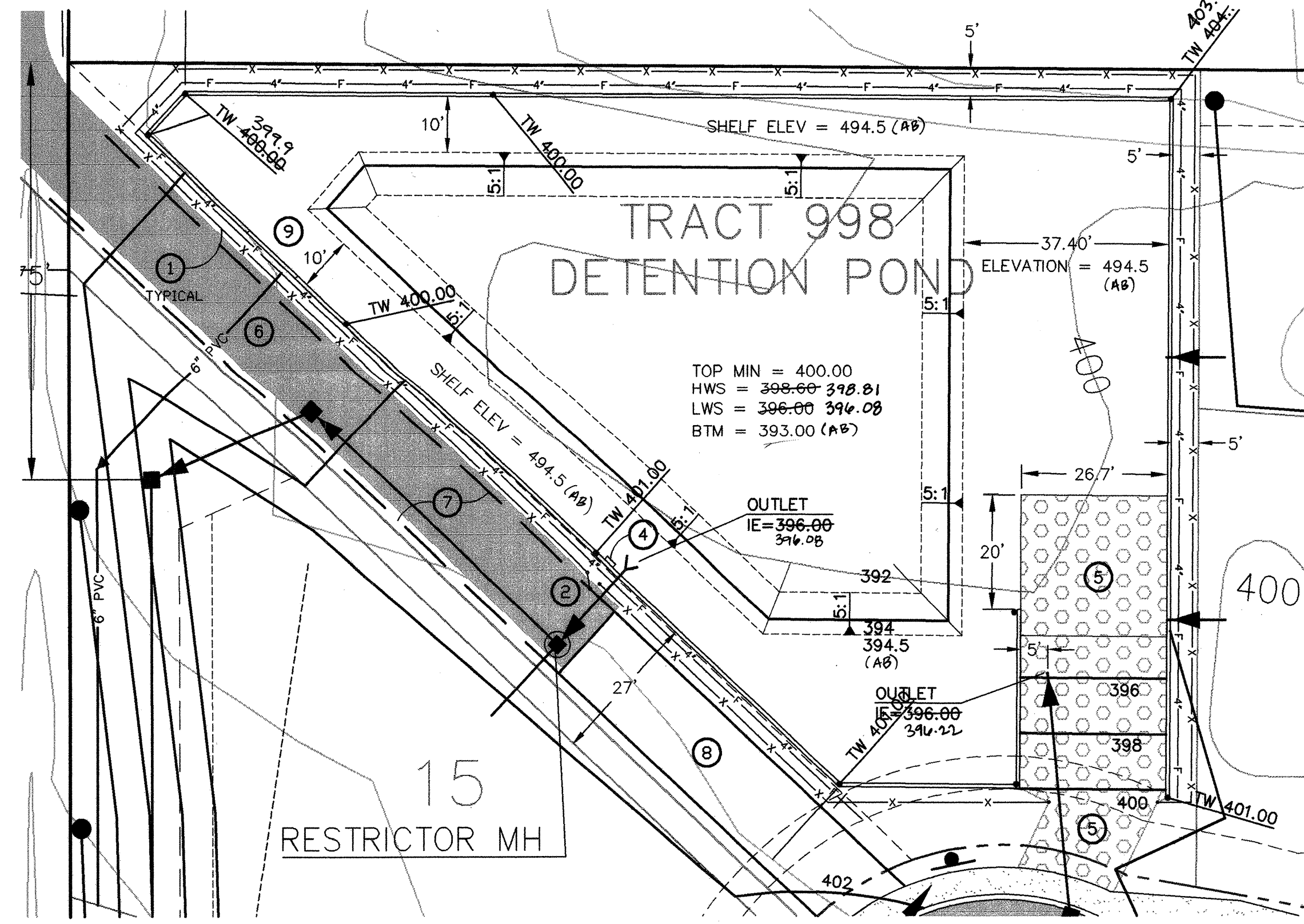
SNOHOMISH COUNTY PLANNING & DEVELOPMENT SERVICES
APPROVED FOR CONSTRUCTION
By: *[Signature]* 4/2/99
R/W Permit No. 98 103129 4P

Designed by	Drawn by	Checked by	Issue Date
RAM	RAM	RAM	11-20-97
No.	Revision	Date	
1	PER SNOHOMISH COUNTY COMMENTS	3-30-98	
2	AS-BUILT	2-14-00	
3			
4			
5			

MURRAY - TOBIASON, INC.
Planning • Civil Engineering • Landscape Architecture
626 - 12th Street Southwest, Suite 107 • Everett, Washington 98204-5368
Telephone: (425) 513-2500 • Fax: (425) 742-2822

SEATTLE HILL ESTATES
332805-3-001-0007 File No. 95 110056
AS-BUILT
DETAILS
Applicant: David Maxwell, Harbour Homes, 1914 N. 34th St., Suite 500, Seattle, WA 98103, Phone 206-547-8213

Drawing
C-9
of 10 Drawings
Project Number
2090



DETENTION POND VOLUMES

	DEAD STORAGE	DETENTION (ABOVE 396)	2-YR STORM	10-YR STORM	100-YR STORM	2-YR	10-YR	100-YR
REQUIRED VOLUME =	23,620 CF	39,510 CF (TO 398.60)	33,528 CF	36,727 CF	39,510 CF	0.19	1.19	2.17
DESIGN VOLUME =	25,475 CF	45,678 CF (TO 399.00)	33,528 CF	36,727 CF	39,510 CF	0.19	0.80	2.59
AS-BUILT VOLUME =	32,551 CF	43,486 CF	33,528 CF	36,727 CF	39,510 CF	0.19	0.83	2.67

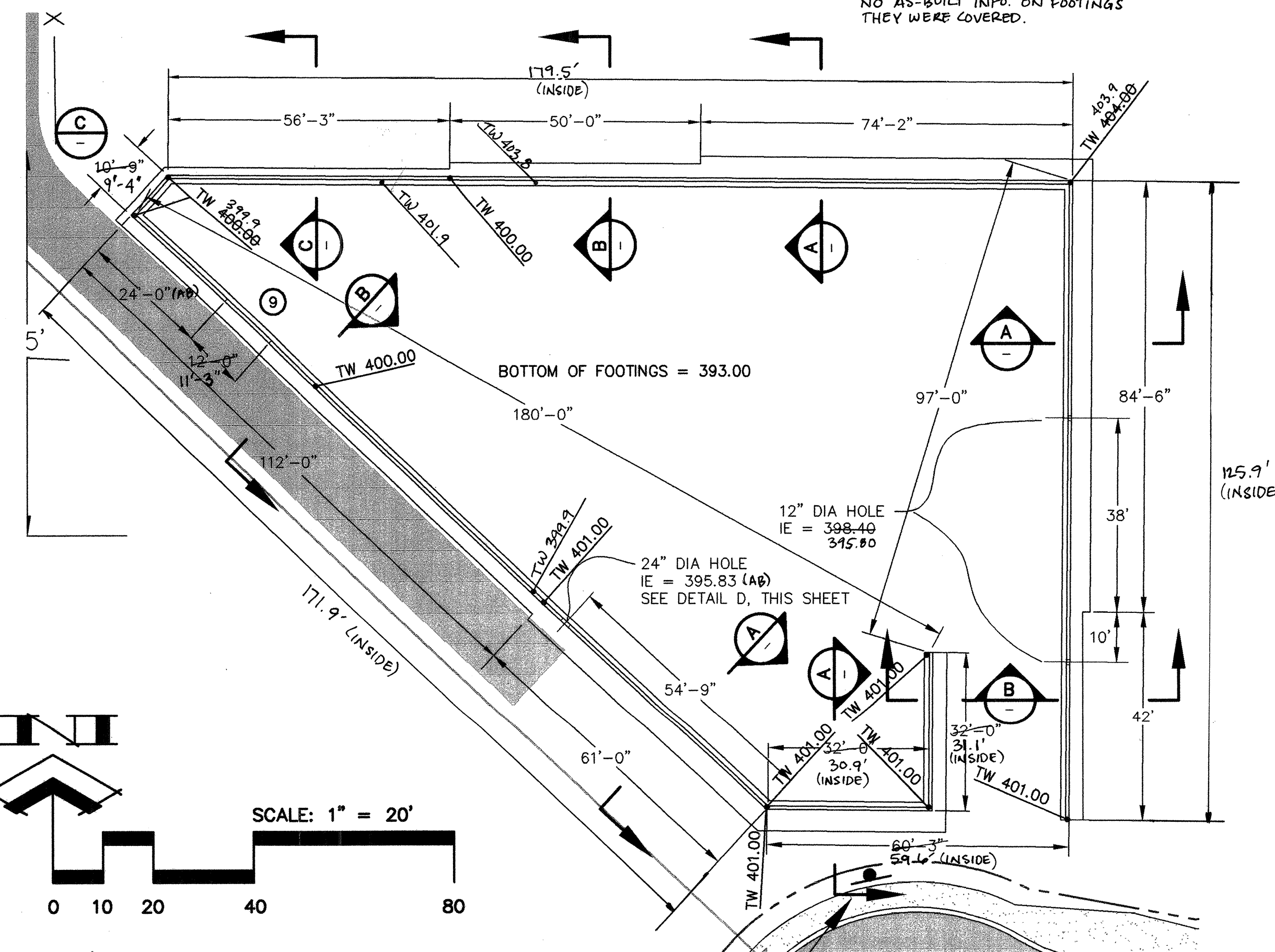
NOTES:
DETENTION POND SERVES SEATTLE HILL
ESTATES & LAUREL ESTATES.

NOTE: SEE SHEET S-1A FOR AS-BUILT POND DETAIL.

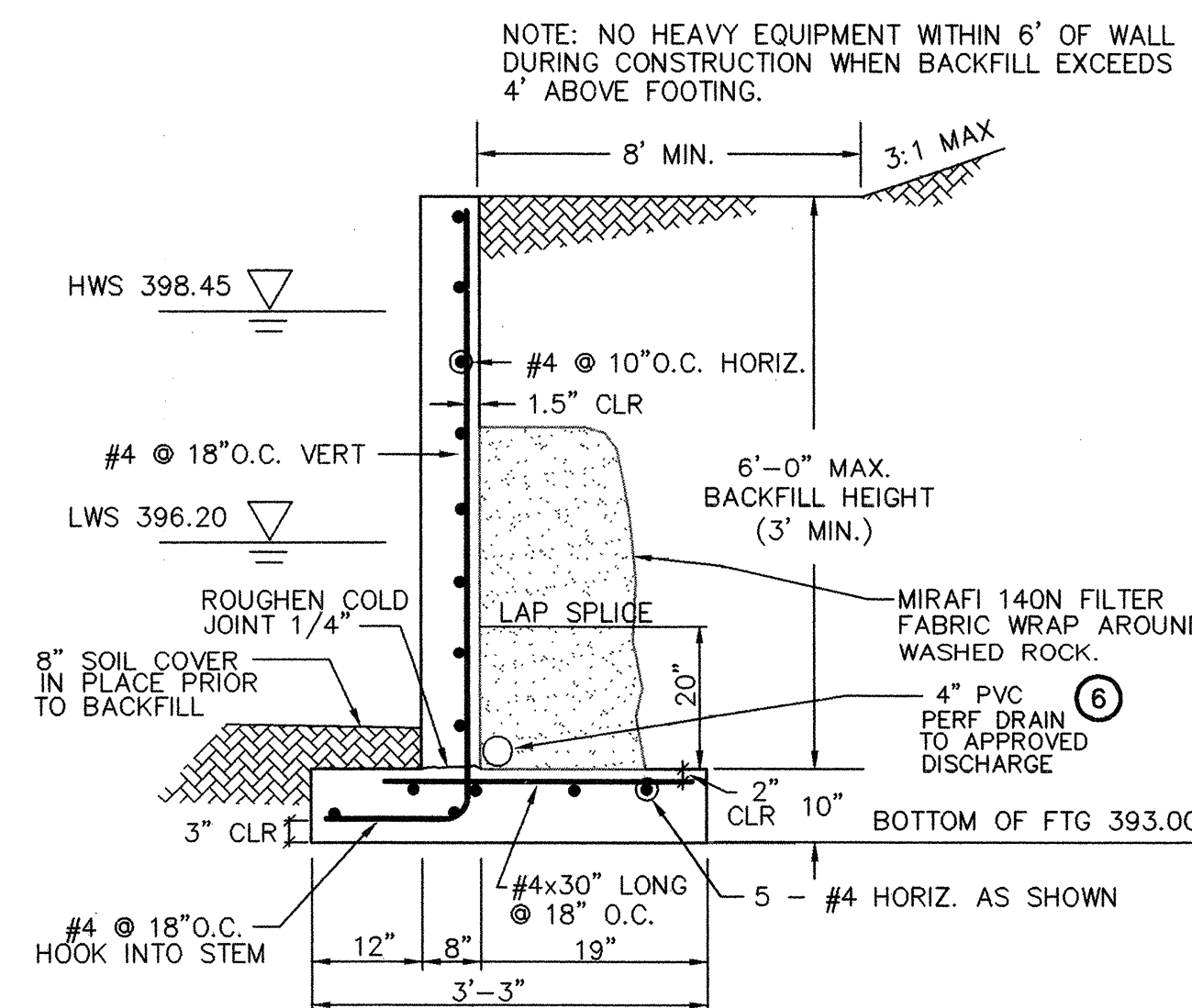
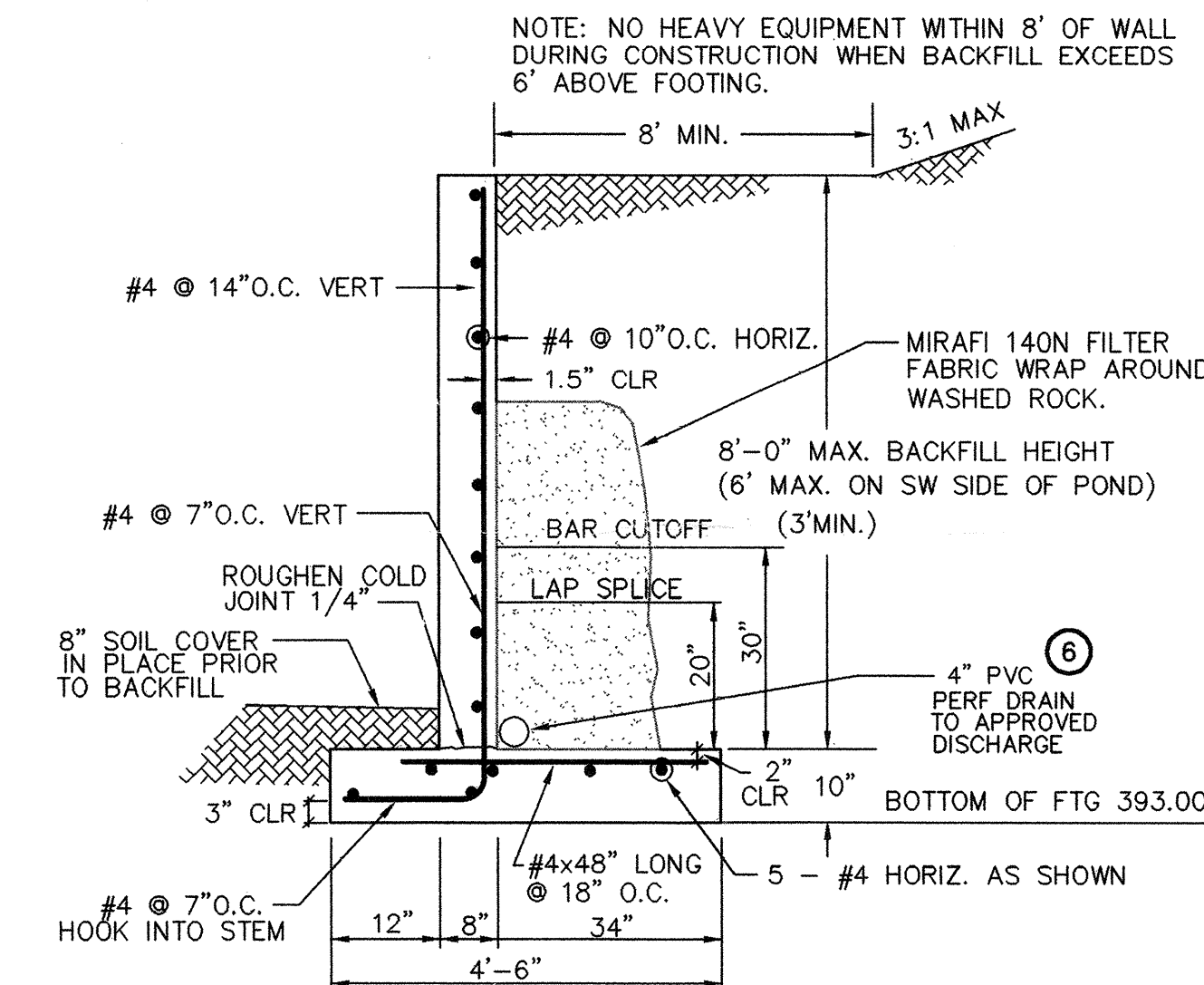
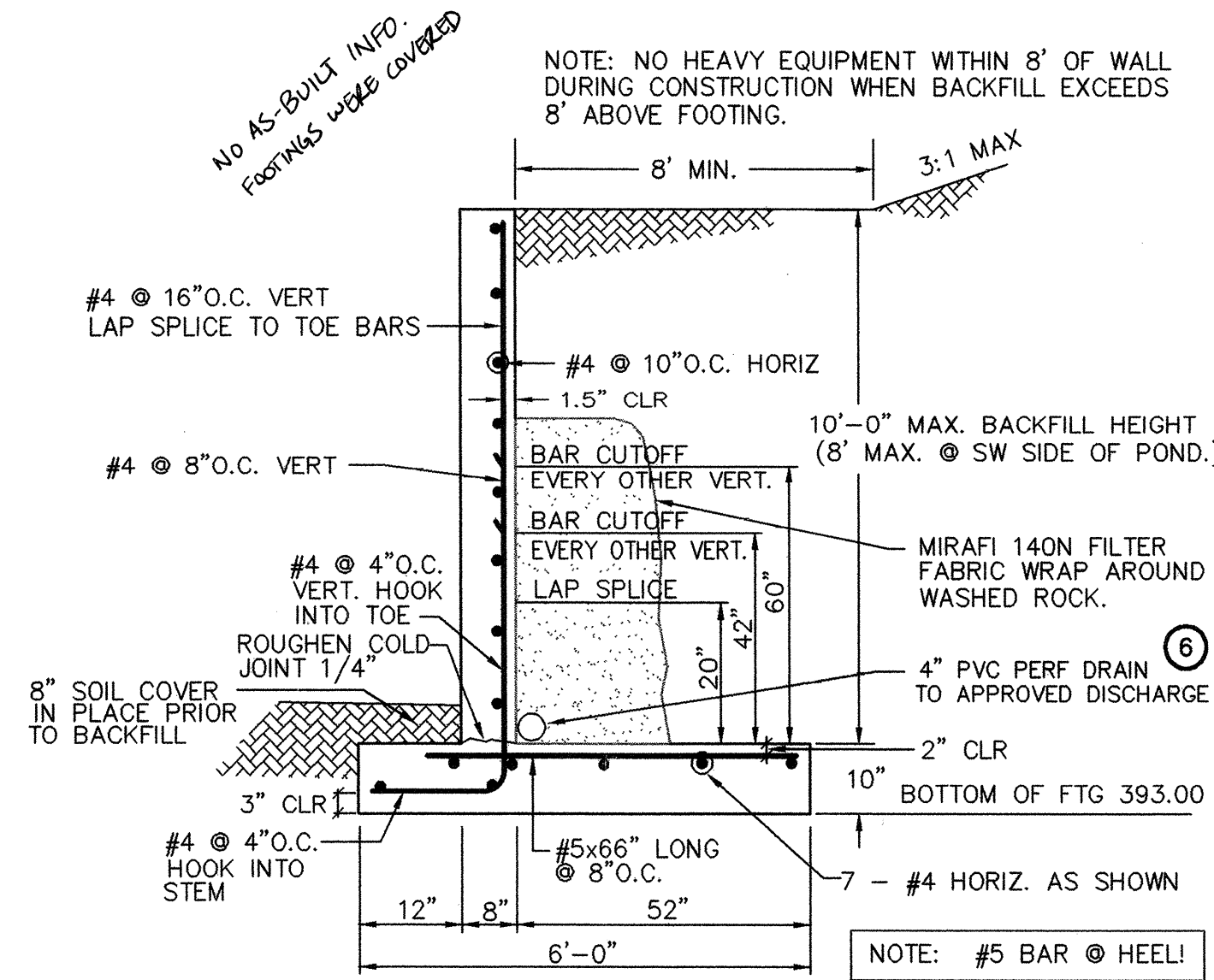
DETENTION POND SITE PLAN

SCALE: 1" = 20'

30
C-5



SW. 1/4, SEC. 33, TWP. 28 N., RGE. 5 E., W.M.



STRUCTURAL NOTES

CODE REQUIREMENTS
ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE UNIFORM BUILDING CODE, 1994 EDITION.

GENERAL
CONTRACTOR SHALL PROVIDE BRACING OR SUPPORT REQUIRED FOR TEMPORARY CONSTRUCTION AND FOR STRUCTURAL COMPONENTS AS REQUIRED DURING ERECTION. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE SHORING, BRACING, FORMWORK, ETC., AS REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION.

DESIGN LOADS

240 PSF TRAFFIC SURCHARGE
120 PCF SOIL DENSITY
62.4 PCF WATER DENSITY
30 PCF SOIL EPP
.35 SOIL FRICTION
SEISMIC ZONE 3

CONCRETE

CONCRETE SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE STANDARD 301. "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS." AN AIR ENTRAINING ADMIXTURE SHALL BE ADDED TO ALL CONCRETE EXPOSED TO EARTH OR WEATHER, PROVIDE A 5% +/- 1% ENTRAINMENT AIR MAXIMUM. SLUMP SHALL BE 4" MAXIMUM AT TIME OF PLACING AND ALL CONCRETE SHALL BE VIBRATED IN PLACE.

f'c = 2500 PSI @ 28 DAYS FOR FOOTINGS & WALLS (NO SPECIAL INSPECTION REQUIRED)
(MIN 5-SACK MIX)

REINFORCING STEEL

GRADE 40 (fy=40 KSI) FOR DEFORMED BARS. MINIMUM CONCRETE COVER SHALL BE:

CONCRETE CAST AGAINST EARTH 3"
FORMED SURFACE EXPOSED TO EARTH OR WEATHER 1 1/2"

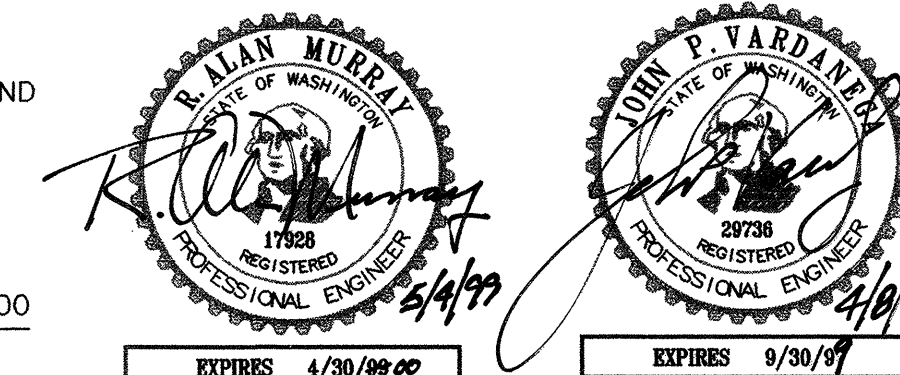
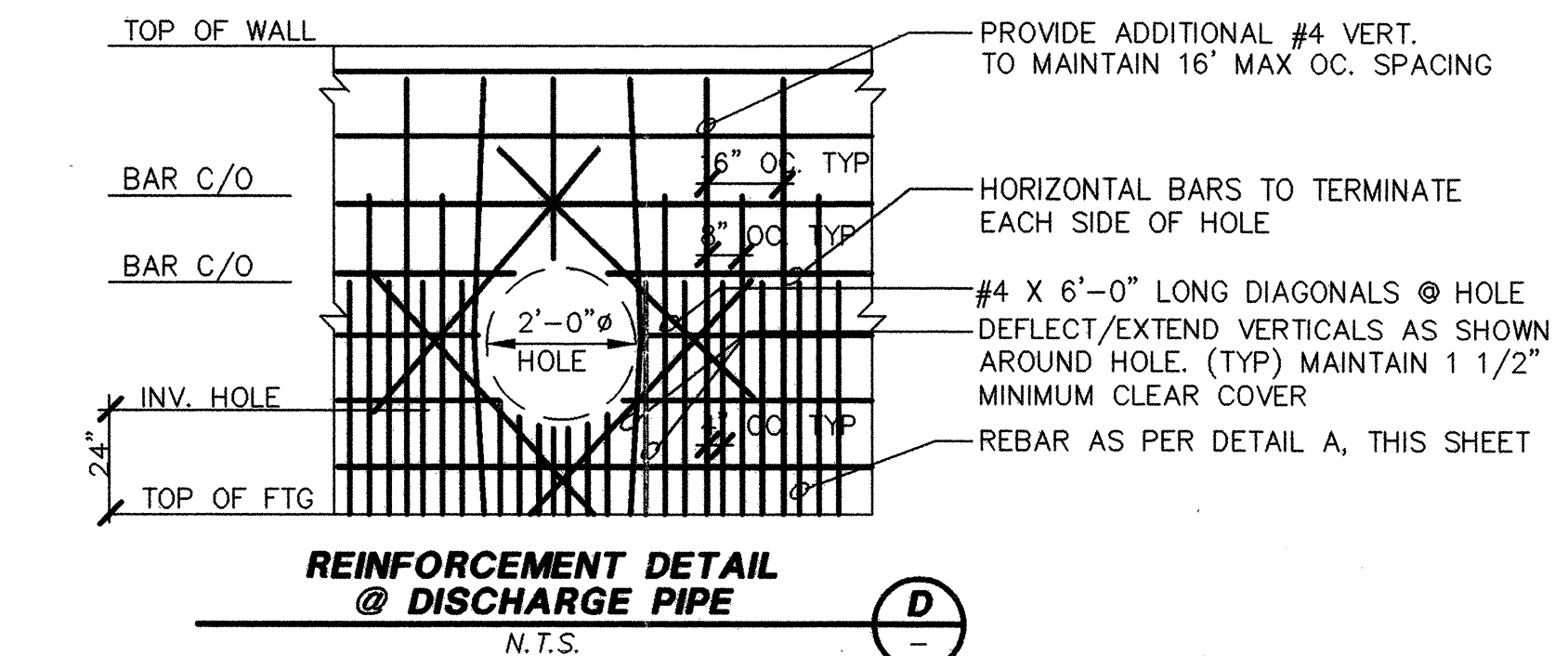
SOIL

FOOTINGS TO BE PLACED ON UNDISTURBED NATIVE SOIL OR COMPACTED STRUCTURAL FILL WITH MINIMUM 2000 PSF ALLOWABLE BEARING. PROVIDE COMPACTION TEST FOR FILL AREAS.

BACKFILL SHALL BE CLEAN GRANULAR MATERIAL, FREE OF ORGANICS OR OTHER DELETERIOUS MATTER. COMPACT IN 12 INCH LIFTS TO 95% OF MAX. DENSITY PER ASTM D-1557 (MODIFIED PROCTOR).

CONSTRUCTION NOTES:

- 1 PROVIDE 6' HIGH FENCE WITH TOP RAIL (PER WSDOT STANDARD PLAN L-2)
- 2 PROVIDE 3" MANGATE
- 3 PROVIDE 20' WIDE DOUBLE LEAF GATE
- 4 PROVIDE STD MH LADDER STEPS
- 5 PROVIDE QUARRY SPALL BLANKET FOR VEHICLE ACCESS OVER-EXCAVATE PRIOR TO PLACEMENT OF ROCK
- 6 PROVIDE FOOTING DRAIN AT BASE OF FOOTING, DRAIN TO DAYLIGHT
- 7 ALL WEATHER GRAVEL SURFACE
- 8 15' WIDE PAVED ACCESS, 2" COMPACTED DEPTH CLASS B ASPHALT CONCRETE, ASPHALT CONCRETE, 3" COMPACTED DEPTH CRUSHED SURFACING BASE COURSE, 6" GRAVEL BASE
- 9 1' DEEP X 12' LONG NOTCH IN WALL, TOP ELEV=399.00 318.95
- 10 15' WIDE RIPRAP X 12" DEEP (TYPE 1) FOR 20' BEYOND. OVEREXCAVATE SLOPED ACCESS PRIOR TO PLACING ROCK.



DATUM: N.G.V.D. 1929 (MEAN SEA LEVEL)
BENCH: CHISELED "X" IN S.E. BOLT OF TRAFFIC SIGNAL BASE AT N.W. CORNER 132ND ST. S.E. AND SEATTLE HILL ROAD, SNOHOMISH COUNTY, B.M. 393/769, ELEV. 437.25

NOTE: TOPOGRAPHIC SURVEY INFORMATION SUPPLIED BY: TRI-COUNTY LAND SURVEYING
BOUNDARY INFORMATION FROM SURVEY BY WILLIAM ROBERTS & ASSOCIATES, JOB No.3476. BASIS OF BEARING NORTH LINE OF THE S.W. 1/4 OF SECTION 33-28-5 BEING N 89 34'19" W RIGHT-OF-WAY FOR SEATTLE HILL ROAD ESTABLISHED FROM PLAT OF THOMAS LAKE ESTATES VOL. 40, PG. 286.

WE HEREBY DECLARE ALL IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE AS-BUILTS PLANS.

BY: *William Murray* 2-15-00
Project Engineer Date

BY: *John P. Vardimakis* 2-15-00
Project Developer Date

SNOHOMISH COUNTY PLANNING & DEVELOPMENT SERVICES

APPROVED FOR CONSTRUCTION

By: *Rodolph A. Shiff* 4/2/99
R/W Permit No. 98 103129 bP

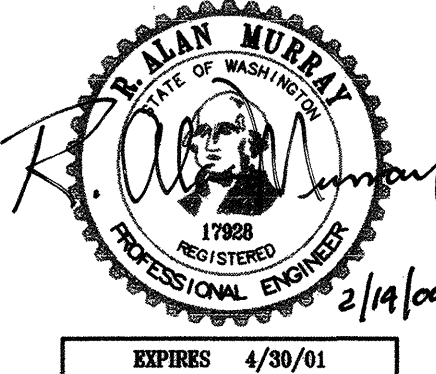
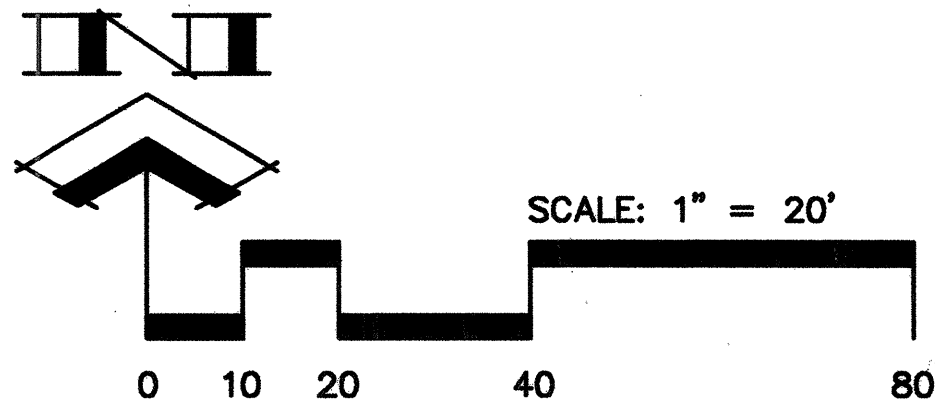
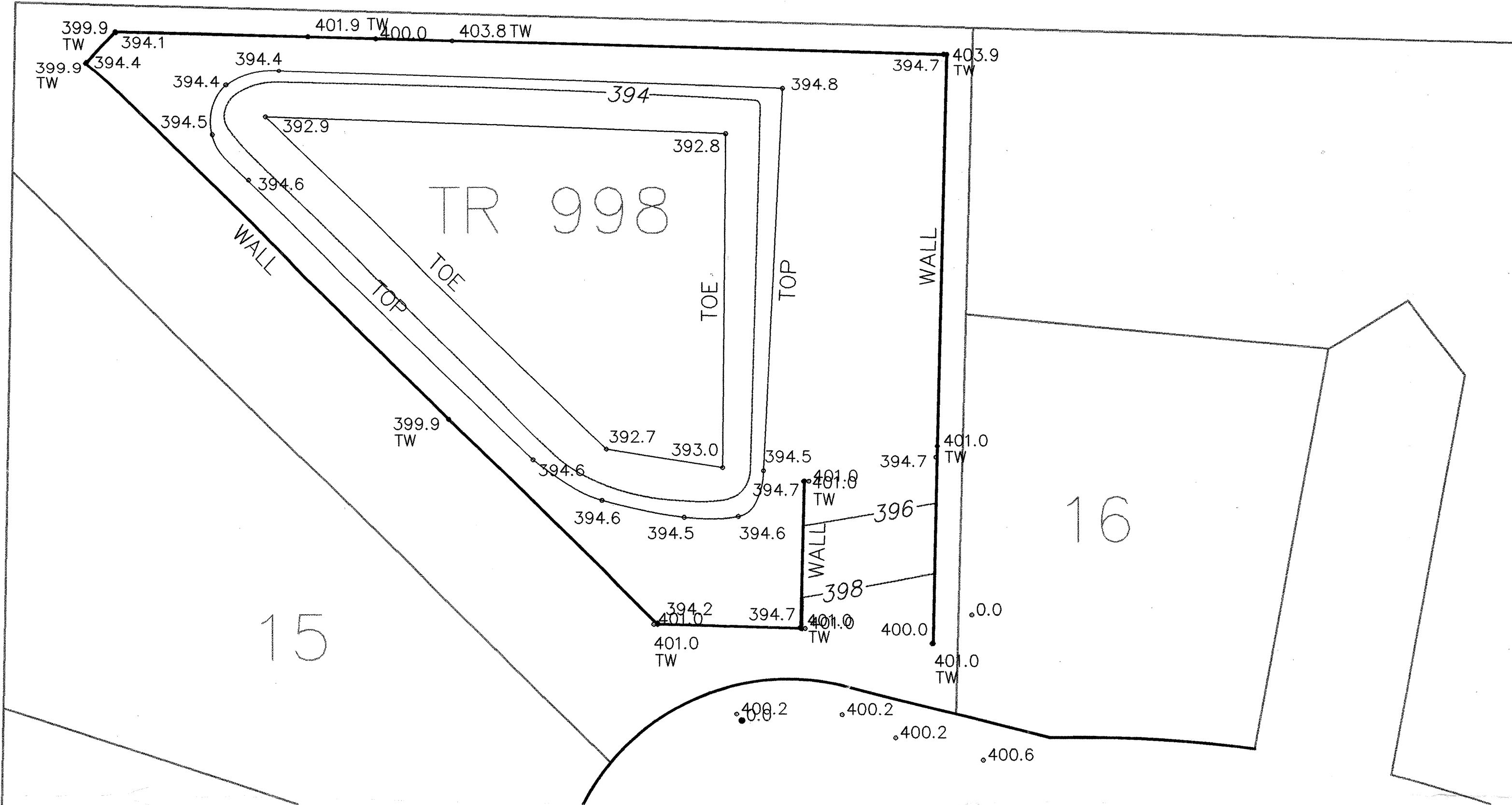
MURRAY - TOBIASON, INC.
Planning • Civil Engineering • Landscape Architecture
826 - 128th Street Southwest, Suite 107 • Everett, Washington 98204-8388
Telephone: (206) 513-2500 • Fax: (206) 742-2822

SEATTLE HILL ESTATES
332805-3-001-0007 95 11056 AS-BUILT
POND LAYOUT AND STRUCTURAL DETAILS
Applicant: David Maxwell, Harbour Homes, 1914 N. 34th St., Suite 500, Seattle, WA 98103 Phone 206-547-9213

Drawing
S-1
of 10 Drawings
Project Number
2090

AS-BUILTS SEATTLE HILL ESTATES

HDEV 2077



WE HEREBY DECLARE ALL IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE AS-BUILTS PLANS.

BY: R. Alan Murray 2-15-00 Date
Project Engineer

BY: Alan Murray 2-15-00 Date
Project Developer

SNOHOMISH COUNTY PLANNING & DEVELOPMENT SERVICES
APPROVED FOR CONSTRUCTION

By: _____

R/W Permit No. _____

Drawing
S-1A
of 11 Drawings
Project Number
2090

SEATTLE HILL ESTATES
TAX NOS. 332805-3-001-0007
AS-BUILT POND DETAIL
Developer: David Maxwell, Harbour Homes, 1814 N 34th ST, Suite 500, Seattle, WA 98103 (206)547-9213

EVERGREEN ENGINEERING SERVICES INC.
LAND USE PLANNING • CIVIL ENGINEERING
8625 Evergreen Way,
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Phone: 425-513-2500
Fax: 425-355-1307
R. ALAN MURRAY, P.E.

Issue Date	02-15-00
By	
Date	
Checked By	RAM
Drawn By	KAO
Designed By	KAO
No.	1
Revision	ISSUE A
No.	2
Revision	
No.	3
Revision	
No.	4
Revision	
No.	5
Revision	