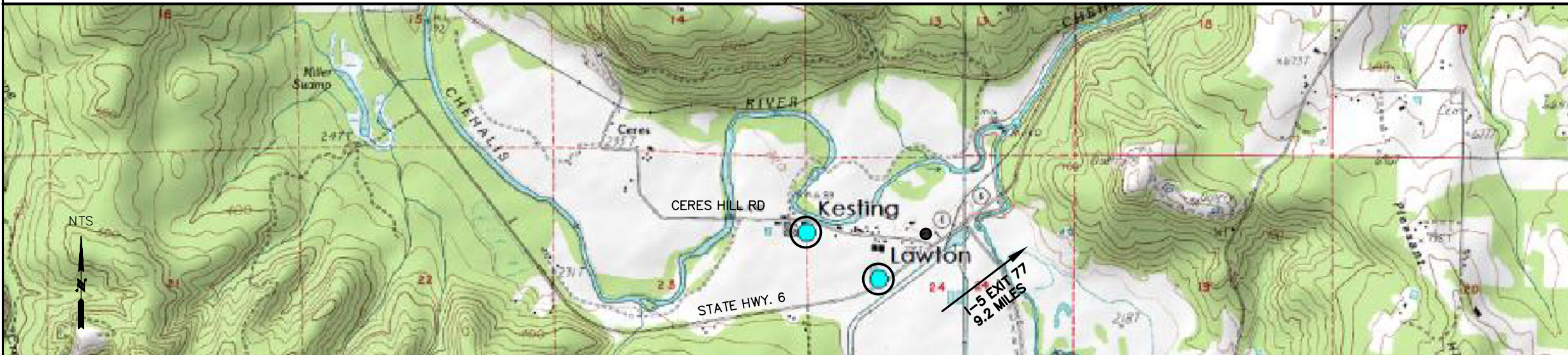
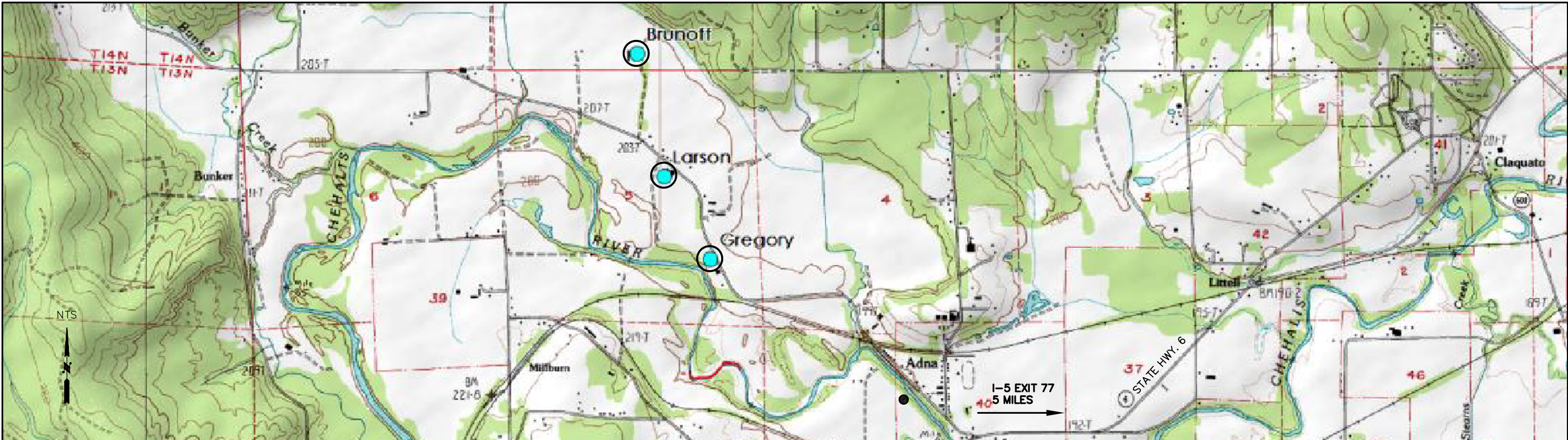




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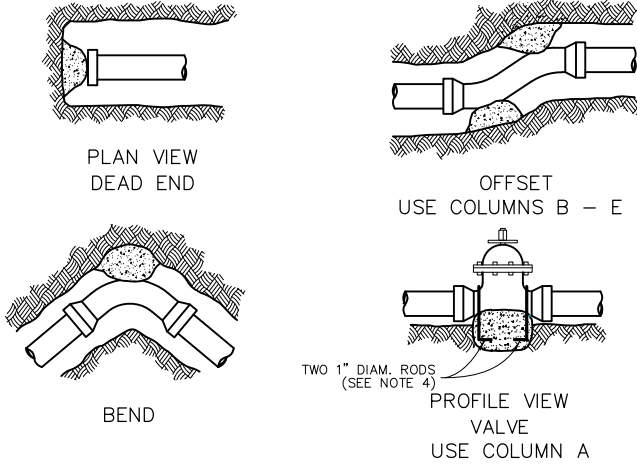




9/6/12

 <div>LEWIS COUNTY CONSERVATION DISTRICT</div> <div>1554 Bishop Rd Chehalis, WA 98532 360-748-0083</div>	SCALE: HOR: 1" = VER: 1" =	BY DATE REVISIONS				FOR: WA STATE CONSERV. COMM. MARK CLARK POB 47721 OLYMPIA, WA 98504-7721 PH: (360) 407-6200	CHEHALIS RIVER CRITTER PADS VICINITY MAPS				JOB NO.	
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	DESIGNER: MWS DRAFTER: MWS DATE: 9/6/12	△										SHEET 2 13
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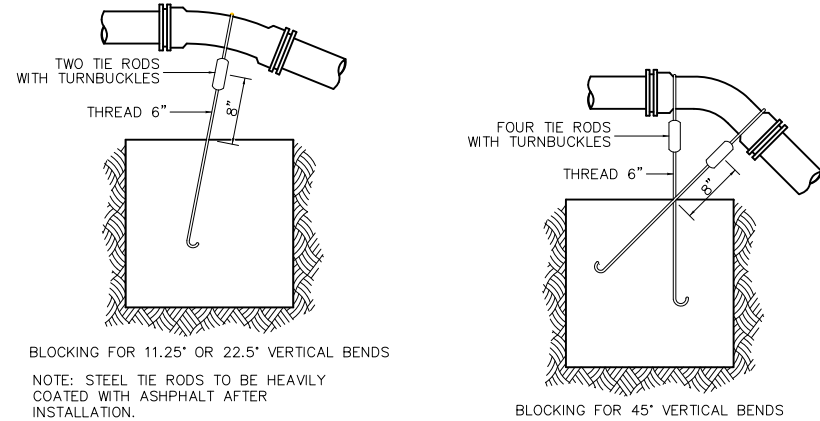
TYPICAL THRUST BLOCK DETAILS
NTS



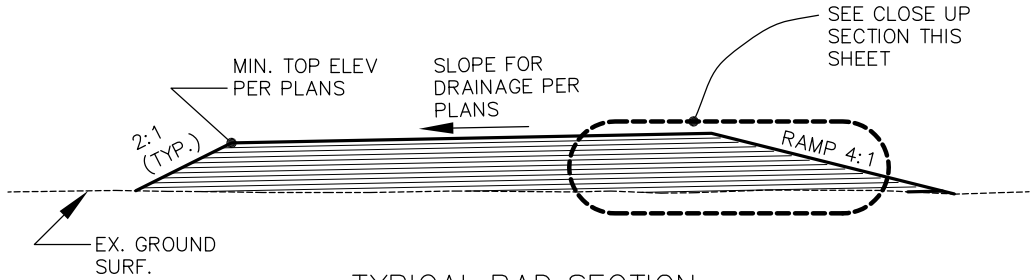
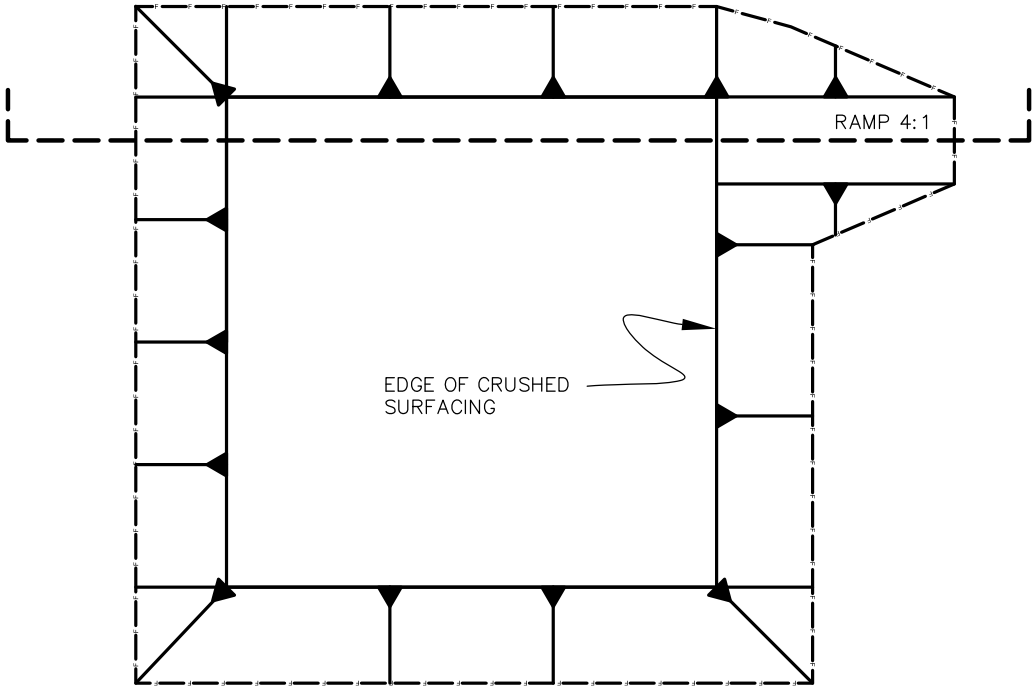
SIZE	TEST PRESSURE (PSI)	THRUST AT FITTINGS IN POUNDS				
		A TEE AND DEAD ENDS	B 90° BEND	C 45° BEND	D 22.5° BEND	E 11.25° BEND
4"	250	3,140	4,440	2,405	1,225	615
5"	250	5,105	7,217	3,907	1,992	1,000
6"	250	7,070	9,995	5,410	2,760	1,385

SOIL TYPE	SAFE BEARING LOAD (PSF)
MUCK, PEAT, ETC.	0
SOFT CLAY	1,000
SILTY CLAY & CLAY LOAM	2,000
SAND AND GRAVEL	3,000
SAND & GRAVEL CEMENTED WITH CLAY	4,000
HARD SHALE	10,000

- CONTRACTOR TO PROVIDE BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE.
- DIVIDE THRUST BY SAFE BEARING LOAD TO DETERMINE REQUIRED AREA (IN SQUARE FEET) OF CONCRETE TO DISTRIBUTE LOAD.
- AREAS TO BE ADJUSTED FOR OTHER PRESSURE CONDITIONS.
- PROVIDE TWO 1" MINIMUM DIAMETER RODS ON VALVES UP THROUGH 10" DIAMETER.



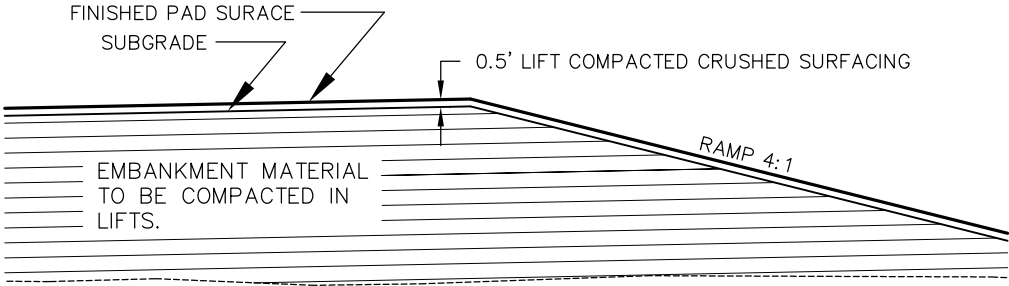
TYPICAL PAD PLAN
NTS



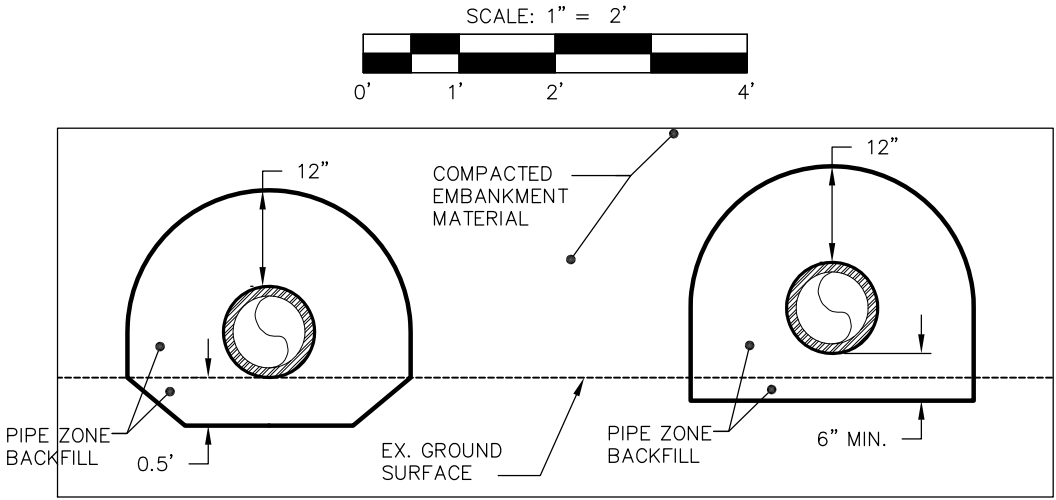
TYPICAL PAD SECTION
NTS

DIMENSION TABLE						
PIPE DIAM.	TEST PRESSURE (PSI)	BEND ANGLE	CONCRETE VOLUME (FT3)	CUBE SIZE (FT)	TIE ROD DIAM.	TIE ROD EMBEDMENT
5"	250	11.25°	10	2.1	5/8"	17"
		22.5°	20	2.7		
		45°	36	3.3		
6"	250	11.25°	14	2.4	5/8"	17"
		22.5°	27	3.0		
		45°	50	3.7		

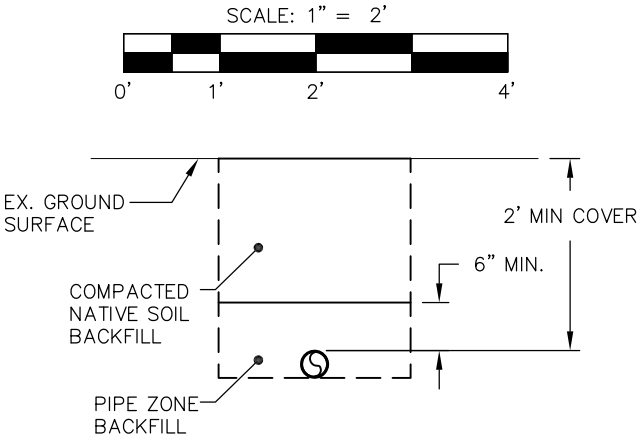
TYPICAL PAD CLOSE UP SECTION
NTS



TYPICAL CULVERT SECTION



TYPICAL FORCEMAIN SECTION



9/6/12



LEWIS COUNTY
CONSERVATION
DISTRICT

1554 Bishop Rd
Chehalis, WA 98532
360-748-0083

SCALE:
HOR: 1" =
VER: 1" =

DESIGNER: MWS
DRAFTER: MWS
DATE: 9/6/12

BY		DATE		REVISIONS	
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FOR:
WA STATE CONSERV. COMM.
MARK CLARK
POB 47721
OLYMPIA, WA 98504-7721
PH: (360) 407-6200

CHEHALIS RIVER CRITTER PADS
TYPICAL DETAILS

SEC. 5 T. 13N. R. 3W
SEC. 23, 24 T. 13N. R. 4W
SEC. 32 T. 14N. R. 3W

JOB NO.

SHEET
3
13

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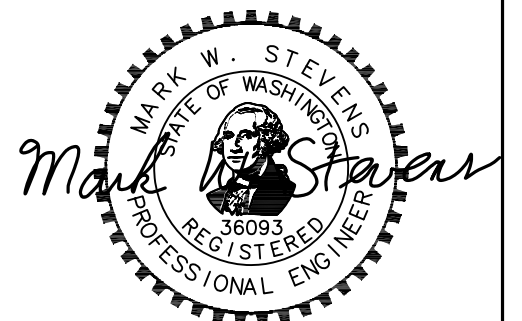


PLAN VIEW

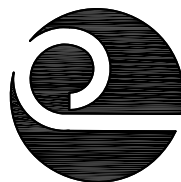
SCALE: 1" = 200'



CI = 2 FT



9/6/12



LEWIS COUNTY
CONSERVATION
DISTRICT

1554 Bishop Rd
Chehalis, WA 98532
360-748-0083

SCALE:
HOR: 1" = 200'
VER: 1" =

DESIGNER: MWS
DRAFTER: MWS
DATE: 9/6/12

	BY	DATE	REVISIONS	
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FOR:

WA STATE CONSERV. COMM.

MARK CLARK

POB 47721

OLYMPIA, WA 98504-7721

PH: (360) 407-6200

CHEHALIS RIVER CRITTER PADS
GREGORY FARM
PAD LOCATION

JOB NO.

SHEET
4

13

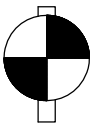
SEC. 5 T. 13N. R. 3W



9/6/12

PLAN VIEW

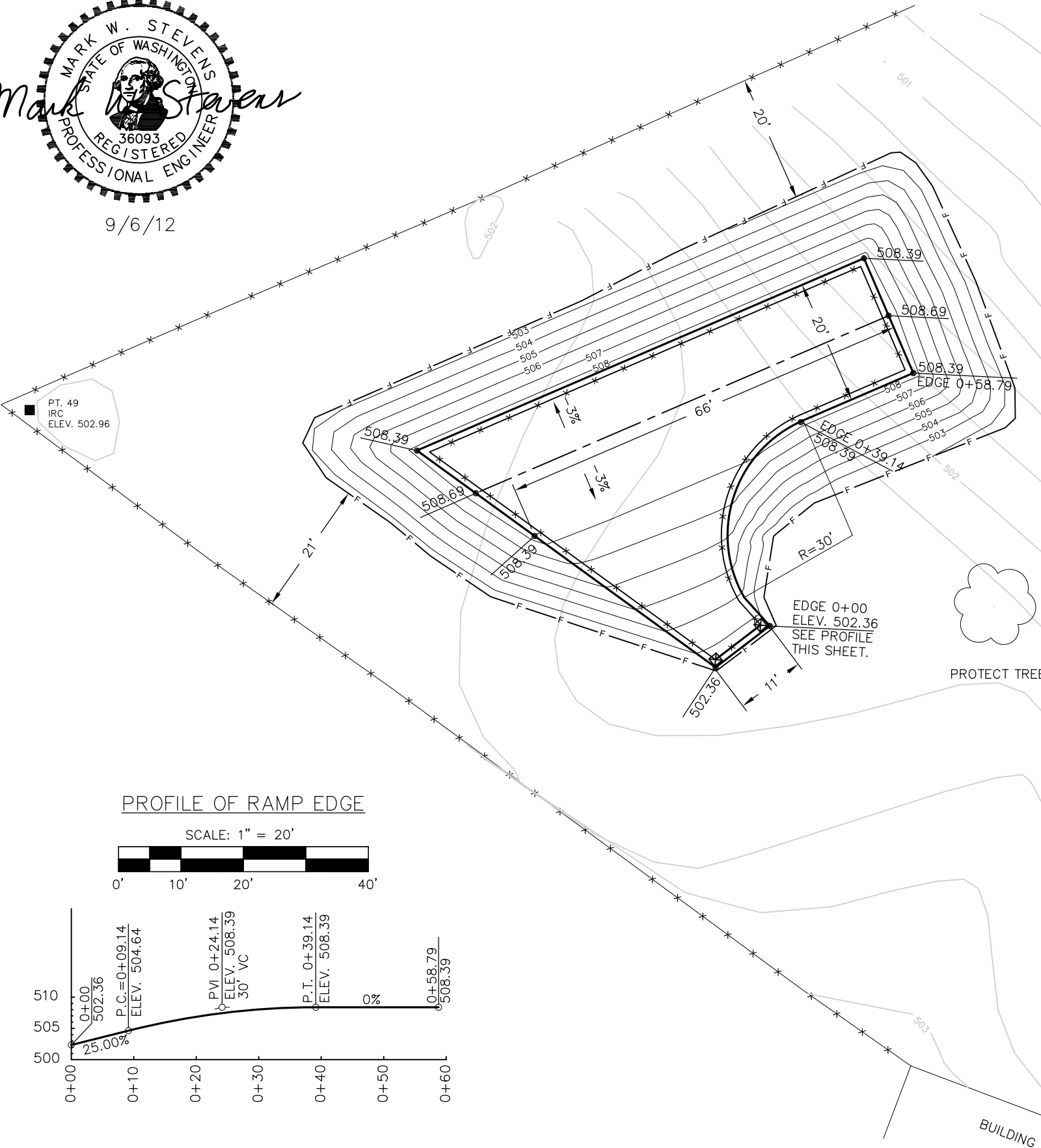
SCALE: 1" = 20'



ASSUMED COORDINATES AND DATUM.
TO CONVERT PLANS ELEVATIONS TO
NAVD 88 DATUM, SUBTRACT 299.6 FT.

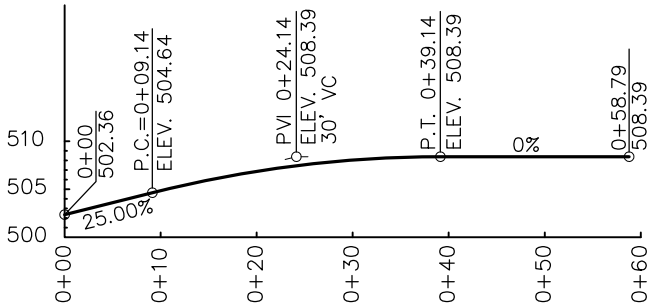
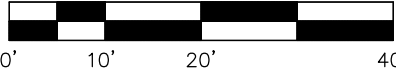
CI: EXIST. = 0.2 FT
FINAL = 1 FT

MINIMUM FINAL GRADE TOP OF PAD IS
DESIGNED AT 2 FT ABOVE STAGE OF
DEC. 2007 FLOOD.



PROFILE OF RAMP EDGE

SCALE: 1" = 20'



Gregory Farm - Estimated Quantities

Item	Unit	No. of Units
Pad Top Area	sf	1,436
Embankment	ccy	708
Excavation	bcy	0
Crushed Surfacing	ccy	45
Ballast	ccy	0
Pipe Zone Backfill	ccy	0
Culvert	lf	0
Force Main Pipe	lf	0
Geotextile Fabric	sy	0
Fence	lf	230

Abbreviations:
sf = square feet
ccy = compacted cubic yard
bcy = bank cubic yard
lf = linear foot
sy = square yard



LEWIS COUNTY
CONSERVATION
DISTRICT

1554 Bishop Rd
Chehalis, WA 98532
360-748-0083

SCALE:
HOR: 1" = 20'
VER: 1" = 20'

DESIGNER: MWS
DRAFTER: MWS
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FOR:
WA STATE CONSERV. COMM.
MARK CLARK
POB 47721
OLYMPIA, WA 98504-7721
PH: (360) 407-6200

CHEHALIS RIVER CRITTER PADS
GREGORY FARM
CONSTRUCTION DETAILS

SEC. 5 T. 13N. R. 3W

JOB NO.

5
13

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PLAN VIEW

SCALE: 1" = 200'



CI = 2 FT



9/6/12



LEWIS COUNTY
CONSERVATION
DISTRICT

1554 Bishop Rd
Chehalis, WA 98532
360-748-0083

SCALE:
HOR: 1" = 200'
VER: 1" =

DESIGNER: MWS
DRAFTER: MWS
DATE: 9/6/12

	BY	DATE	REVISIONS	
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PH: (360) 407-6200

CHEHALIS RIVER CRITTER PADS
LARSON FARM
PAD LOCATION

SEC. 5 T. 13N. R. 3W

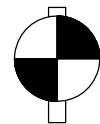
JOB NO.

SHEET
6

13



9/6/12

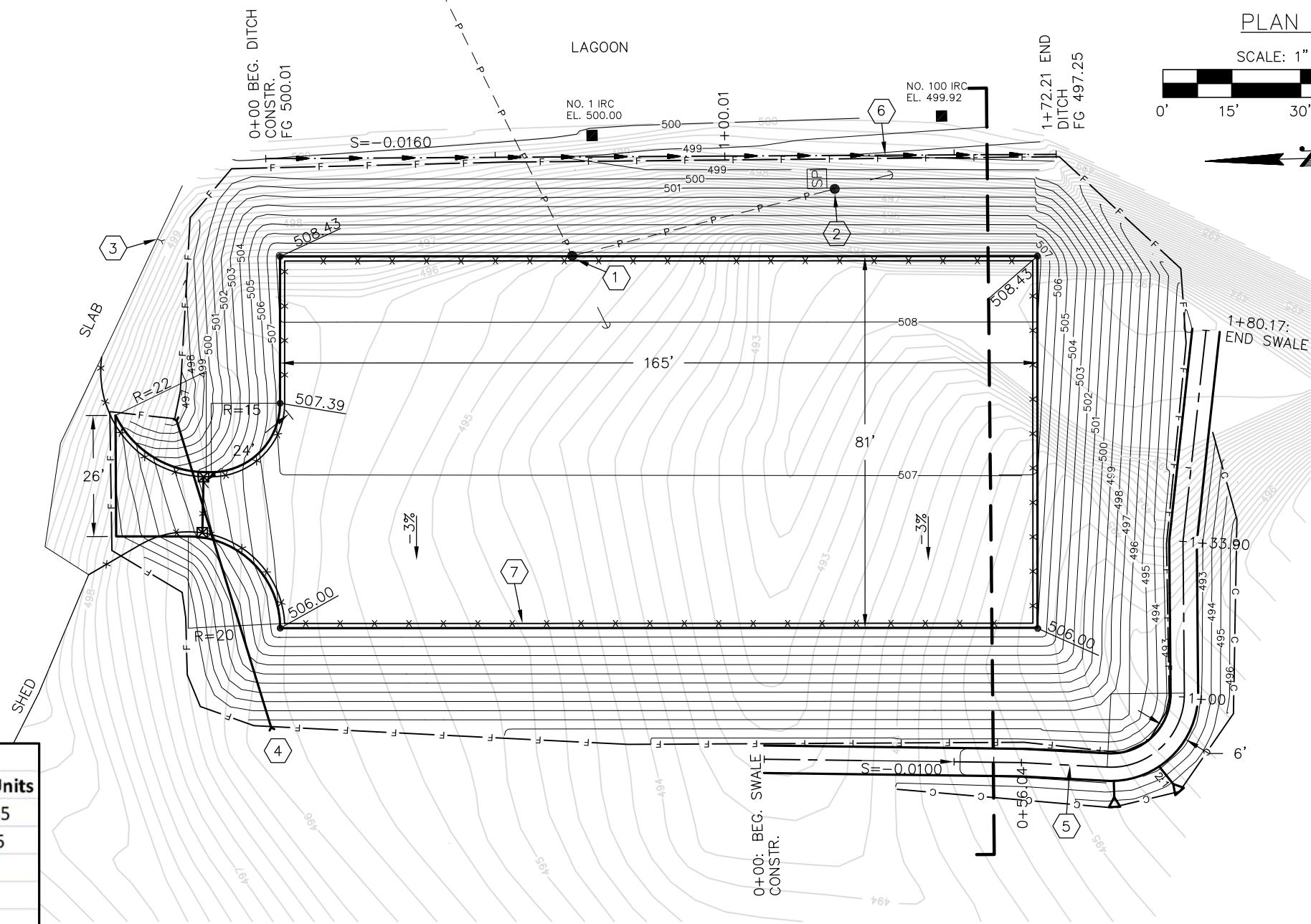


ASSUMED COORDINATES AND DATUM.

TO CONVERT PLANS ELEVATIONS TO
NAVD 88 DATUM, SUBTRACT 296.7 FT.

CI: EXIST. = 0.2 FT
FINAL = 1 FT

MINIMUM FINAL GRADE TOP OF PAD IS
DESIGNED AT 2 FT ABOVE STAGE OF
DEC. 2007 FLOOD.



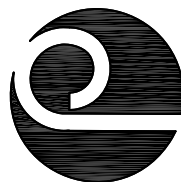
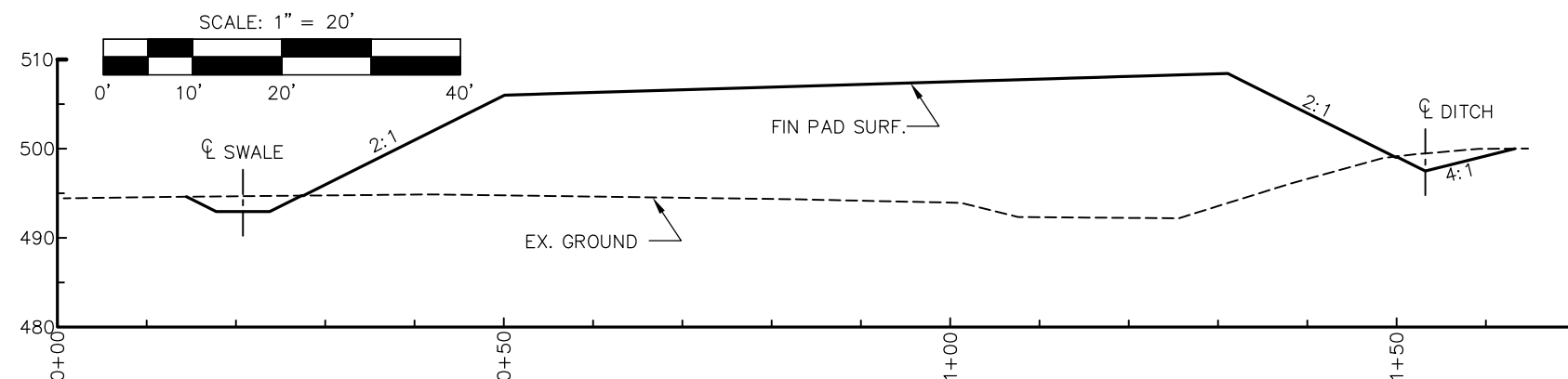
NOTES:

- 1 FILL 13' AT BASE EX. POLE.
- 2 FILL 4' AT BASE EX. POLE. RAISE EX. ELECTRICAL PANEL 4'.
- 3 EXIST. ROOF DOWNSPOUT (APPROX.): IE_o=497.5 (APPROX.)
- 4 INST. 15" X 70' CULVERT:
IE_i=496.6
IE_o=495.5
S=-0.0157
- 5 CONST. DRAINAGE SWALE. SEE SECTION THIS SHEET.
- 6 CONST. DITCH ON TOP OF EX. LAGOON BERM. SHAPE TOP OF BERM AT 4:1 PER SECTION THIS SHEET.
- 7 INST. FENCE.

Larson Farm - Estimated Quantities		
Item	Unit	No. of Units
Pad Top Area	sf	13,365
Embankment	ccy	9,245
Excavation	bcy	155
Crushed Surfacing	ccy	260
Ballast	ccy	0
Pipe Zone Backfill	ccy	16
Culvert	lf	70
Force Main Pipe	lf	0
Geotextile Fabric	sy	0
Electrical Panel Adustment	ea	1
Fence	lf	580

Abbreviations:
sf = square feet
ccy = compacted cubic yard
bcy = bank cubic yard
lf = linear foot
sy = square yard

PAD SECTION



LEWIS COUNTY
CONSERVATION
DISTRICT

1554 Bishop Rd
Chehalis, WA 98532
360-748-0083

SCALE:
HOR: 1" =
VER: 1" =

DESIGNER: MWS
DRAFTER: MWS
DATE: 9/6/12

BY	DATE	REVISIONS
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FOR:

WA STATE CONSERV. COMM.

MARK CLARK

POB 47721

OLYMPIA, WA 98504-7721

PH: (360) 407-6200

CHEHALIS RIVER CRITTER PADS
LARSON FARM
CONSTRUCTION DETAILS

JOB NO.

7

13

SEC. 5 T. 13N. R. 3W

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PLAN VIEW

SCALE: 1" = 200'



CI = 2 FT



9/6/12



LEWIS COUNTY
CONSERVATION
DISTRICT

1554 Bishop Rd
Chehalis, WA 98532
360-748-0083

SCALE:
HOR: 1" = 200'
VER: 1" =

DESIGNER: MWS
DRAFTER: MWS
DATE: 9/6/12

BY		DATE		REVISIONS	
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FOR:
WA STATE CONSERV. COMM.
MARK CLARK
POB 47721
OLYMPIA, WA 98504-7721
PH: (360) 407-6200

CHEHALIS RIVER CRITTER PADS
BRUNOFF FARM
PAD LOCATION

SEC. 32 T. 14N. R. 3W

JOB NO.

SHEET
8

13

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Brunoff Farm - Estimated Quantities		
Item	Unit	No. of Units
Pad Top Area	sf	10,636
Embankment	ccy	8,309
Excavation	bcy	30
Crushed Surfacing	ccy	215
Ballast	ccy	0
Pipe Zone Backfill	ccy	50
Culvert 15" Dia.	lf	140
Culvert 36" Dia.	lf	20
Force Main Pipe	lf	180
Thrust Block	ea	2
Fence	lf	560

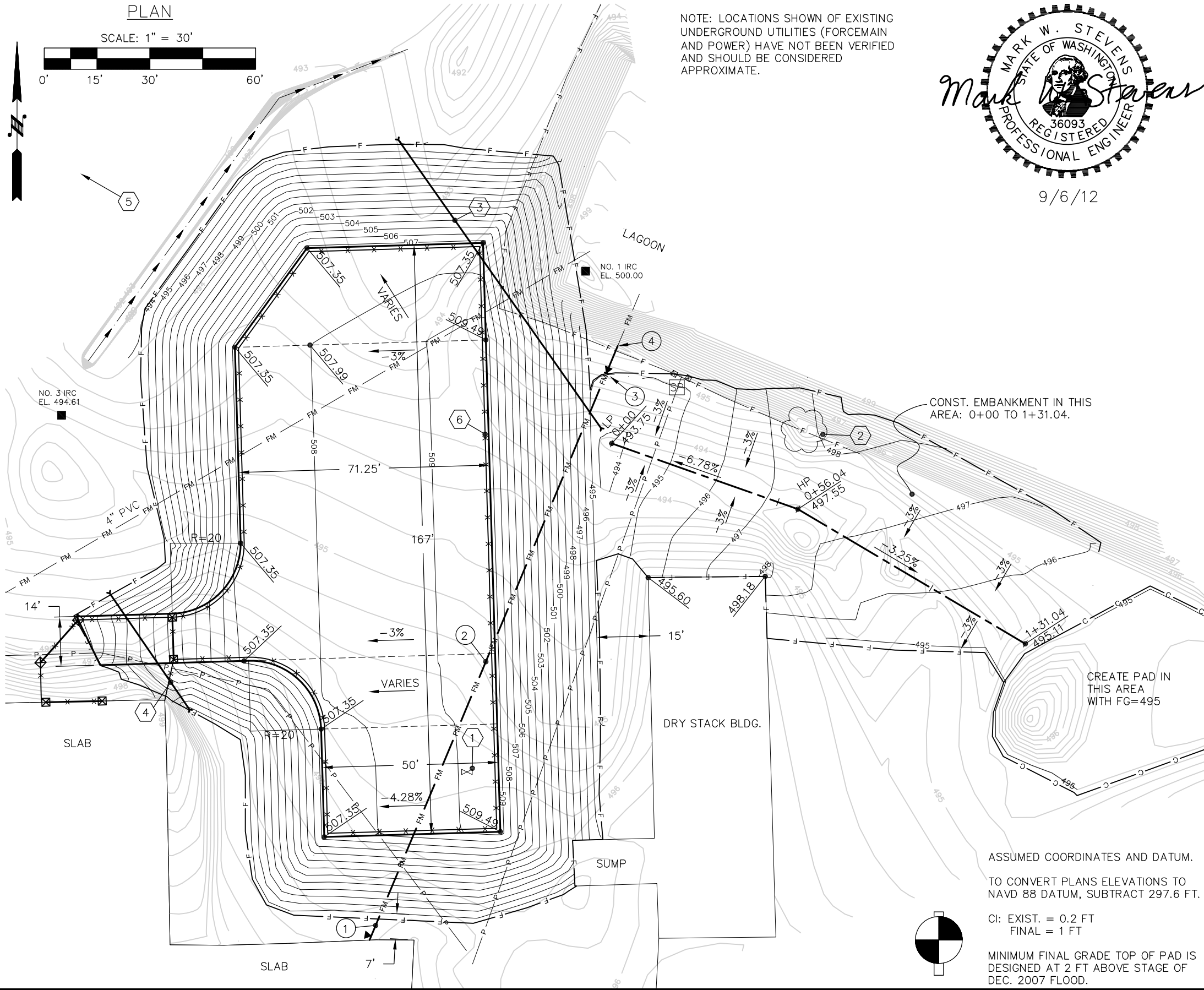
Abbreviations:
sf = square feet
ccy = compacted cubic yard
bcy = bank cubic yard
lf = linear foot
sy = square yard

FORECMAIN NOTES:

- 1 CUT EX. PVC FORCEMAIN AND CONNECT NEW 5" PVC FORCEMAIN. INSTALL ALL NECESSARY FITTINGS AND THRUST BLOCKS.
- 2 ABANDON EXIST. 5" DIA. PVC FORCEMAIN AND INSTALL NEW 5" PVC FORCEMAIN.
- 3 DIRECT NEW FORCEMAIN TOWARD GROUND SURFACE: 22.5' EL THRUST BLOCK.
- 4 CONNECT NEW FORCEMAIN TO EXIST. 5" DIA. PVC FORCEMAIN. 22.5' EL.

NOTES:

- 1 REMOVE VALVE BOX AND LEAVE WATERLINE.
- 2 CLEAR AND GRUB CW TREE. REPAIR LAGOON SLOPE AS NECESSARY.
- 3 INST. 15" X 100' CULVERT:
IEi=493.8
IEo=493.0
S=-0.0080
- 4 INST. 15" X 40' CULVERT:
IEi=496.8
IEo=495.4
S=-0.0350
- 5 REPLACE EX CULVERT WITH 36" X 20' CULVERT. SEE SHEET 8.
- 6 INST. FENCE.



LEWIS COUNTY
CONSERVATION
DISTRICT

1554 Bishop Rd
Chehalis, WA 98532
360-748-0083

SCALE:
HOR: 1" = 30'
VER: 1" =

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DRAFTER: MWS
DATE: 9/6/12

BY	DATE	REVISIONS
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FOR:
WA STATE CONSERV. COMM.
MARK CLARK
POB 47721
OLYMPIA, WA 98504-7721
PH: (360) 407-6200

CHEHALIS RIVER CRITTER PADS
BRUNOFF FARM
CONSTRUCTION DETAILS

SEC. 32 T. 14N. R. 3W

JOB NO.

SHEET
9
13

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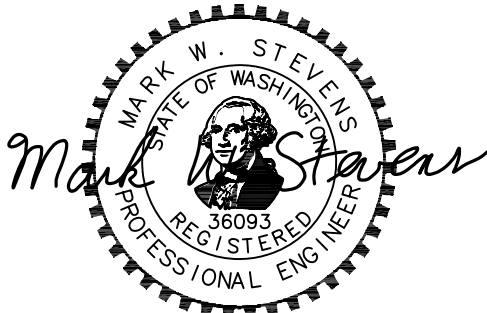


PLAN VIEW

SCALE: 1" = 200'



CI = 2 FT



9/6/12



LEWIS COUNTY
CONSERVATION
DISTRICT

1554 Bishop Rd
Chehalis, WA 98532
360-748-0083

SCALE:
HOR: 1" = 200'
VER: 1" =

DESIGNER: MWS
DRAFTER: MWS
DATE: 9/6/12

	BY	DATE	REVISIONS	
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FOR:
WA STATE CONSERV. COMM.
MARK CLARK
POB 47721
OLYMPIA, WA 98504-7721
PH: (360) 407-6200

CHEHALIS RIVER CRITTER PADS
KESTING FARM
PAD LOCATION

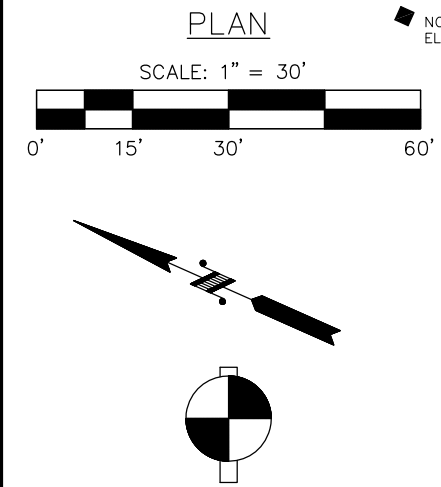
SEC. 23 T. 13N. R. 4W

JOB NO.

SHEET
10

13

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ASSUMED COORDINATES AND DATUM.
TO CONVERT PLANS ELEVATIONS TO
NAVD 88 DATUM, SUBTRACT 269.7 FT.

CI: EXIST. = 0.2 FT
FINAL = 1 FT

MINIMUM FINAL GRADE TOP OF PAD IS
DESIGNED AT 2 FT ABOVE STAGE OF
DEC. 2007 FLOOD.

Kesting Farm - Estimated Quantities		
Item	Unit	No. of Units
Pad Top Area	sf	22,977
Embankment	ccy	13,962
Excavation	bcy	280
Crushed Surfacing	ccy	450
Ballast	ccy	280
Pipe Zone Backfill	ccy	25
Culvert	lf	87
Force Main Pipe	lf	150
Geotextile Fabric	sy	550
Fence	lf	1,110
Fence Removal	lf	190

Abbreviations:
sf = square feet
ccy = compacted cubic yard
bcy = bank cubic yard
lf = linear foot
sy = square yard

- NOTES:
- 1 INST. 15" X 35' CULVERT
IEi=500.6
IEo=500.4
S=-0.0057
 - 2 INST. 15" X 52' CULVERT
IEi=500.0
IEo=499.8
S=-0.0038
 - 3 INST. 6" DIA PVC FORCEMAIN. CAP BOTH ENDS
AND MARK WITH NO. 4 REBAR X 36" LONG.
 - 4 INSTALL GEOTEXTILE FABRIC AND BALLAST
IN HATCHED AREA.
 - 5 INST. FENCE.
 - 6 REMOVE FENCE.

9/6/12

LEWIS COUNTY
CONSERVATION
DISTRICT

1554 Bishop Rd
Chehalis, WA 98532
360-748-0083

SCALE:	BY	DATE	REVISIONS	FOR:	CHEHALIS RIVER CRITTER PADS KESTING FARM CONSTRUCTION DETAILS	JOB NO.
HOR: 1" = 30'				WA STATE CONSERV. COMM. MARK CLARK POB 47721 OLYMPIA, WA 98504-7721 PH: (360) 407-6200		
VER: 1" =						
DESIGNER: MWS						
DRAFTER: MWS						
DATE: 9/6/12					SHEET 11	13

SEC. 23 T. 13N. R. 4W

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PLAN VIEW

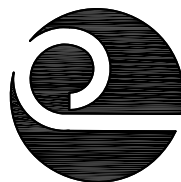
SCALE: 1" = 200'



CI = 2 FT



9/6/12



LEWIS COUNTY
CONSERVATION
DISTRICT

1554 Bishop Rd
Chehalis, WA 98532
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CHEHALIS RIVER CRITTER PADS
LAWTON FARM
PAD LOCATION

JOB NO.

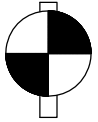
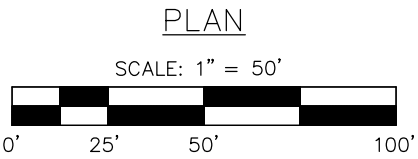
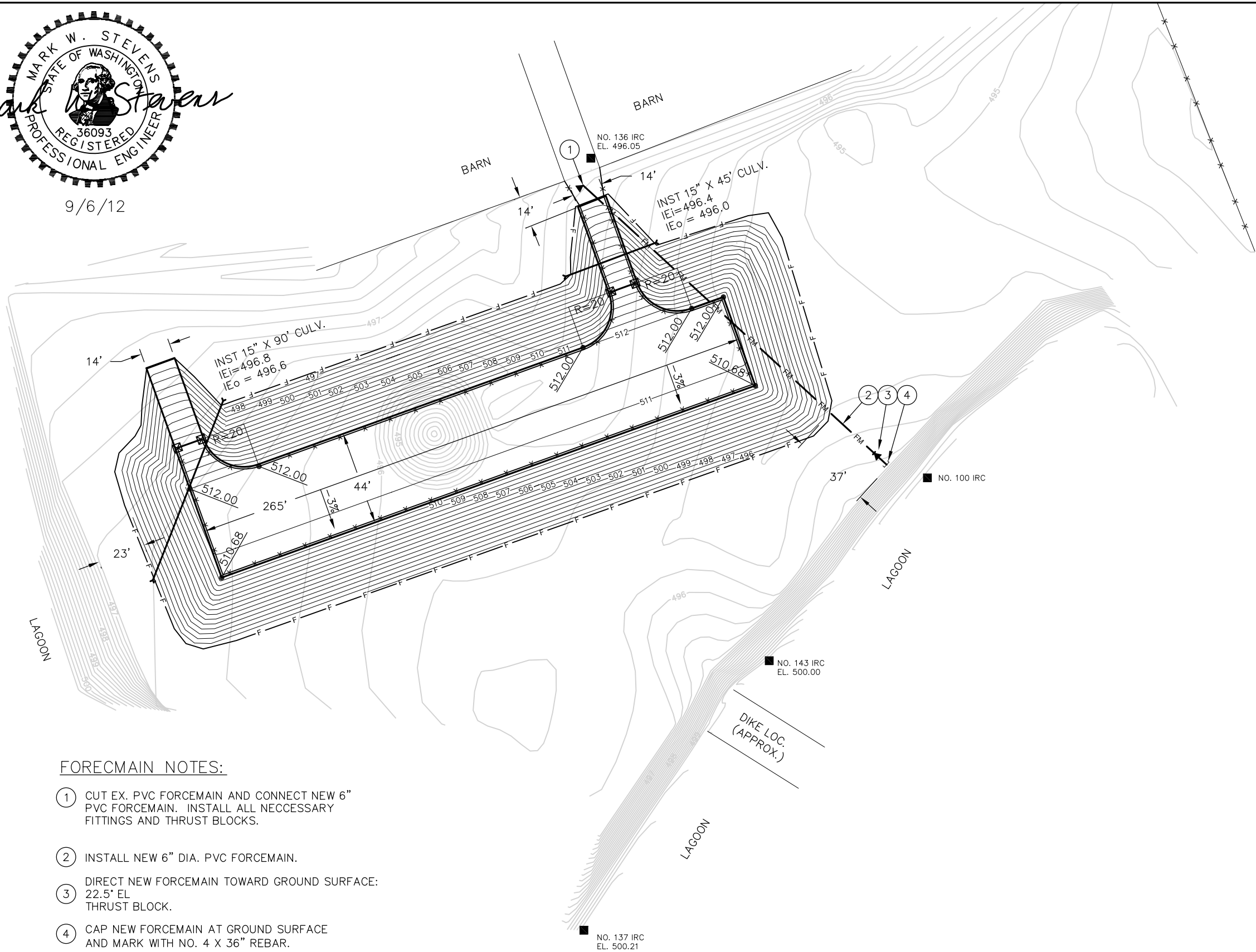
SHEET
12

13

SEC. 24 T. 13N. R. 4W



9/6/12



ASSUMED COORDINATES AND DATUM.

TO CONVERT PLANS ELEVATIONS TO
NAVD 88 DATUM, SUBTRACT 270.1 FT.


CI: EXIST. = 0.2 FT
FINAL = 1 FT

MINIMUM FINAL GRADE TOP OF PAD IS
DESIGNED AT 2 FT ABOVE STAGE OF
DEC. 2007 FLOOD.

FOREMAIN NOTES:

- CUT EX. PVC FORCEMAIN AND CONNECT NEW 6" PVC FORCEMAIN. INSTALL ALL NECESSARY FITTINGS AND THRUST BLOCKS.
- INSTALL NEW 6" DIA. PVC FORCEMAIN.
- DIRECT NEW FORCEMAIN TOWARD GROUND SURFACE: 22.5" EL THRUST BLOCK.
- CAP NEW FORCEMAIN AT GROUND SURFACE AND MARK WITH NO. 4 X 36" REBAR.

Lawton Farm - Estimated Quantities		
Item	Unit	No. of Units
Pad Top Area	sf	11,660
Embankment	ccy	12,972
Excavation	bcy	0
Crushed Surfacing	ccy	250
Ballast	ccy	0
Pipe Zone Backfill	ccy	40
Culvert	lf	135
Force Main Pipe	lf	215
Thrust Block	ea	2
Fence	lf	800
Electrical Panel Adustment	ea	0
Abbreviations:		
sf = square feet		
ccy = compacted cubic yard		
bcy = bank cubic yard		
lf = linear foot		
sy = square yard		

 <div>LEWIS COUNTY CONSERVATION DISTRICT</div> <div>1554 Bishop Rd Chehalis, WA 98532 360-748-0083</div>	SCALE: HOR: 1" = 50' VER: 1" =	BY DATE REVISIONS				FOR: WA STATE CONSERV. COMM. MARK CLARK POB 47721 OLYMPIA, WA 98504-7721 PH: (360) 407-6200	CHEHALIS RIVER CRITTER PADS LAWTON FARM CONSTRUCTION DETAILS	JOB NO.
	DESIGNER: MWS DRAFTER: MWS DATE: 9/6/12	△						
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SEC. 24 T. 13N. R. 4W								SHEET 13 13