

STREET AND DRAINAGE PLANS FOR WEST MEADOWS

A PORTION OF THE N 1/2 OF SECTION 4, TOWNSHIP 24N, RANGE 42E W.M.

SPOKANE COUNTY, WASHINGTON

JANUARY, 2006

SPOKANE COUNTY ENGINEERING OFFICE
 OFFICIAL PUBLIC DOCUMENT
CONSTRUCTION PLANS
 PROJECT #: P-1943
 DATE ACCEPTED: 2/16/06
 ACCEPTANCE EXPIRES: 2/16/08
 PROJECT LANE MILES PUBLIC: 0.34
 PROJECT LANE MILES PRIVATE: _____
 RECORD DRAWINGS "AS-BUILT" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES. PERMITS REQUIRED: (1) PERMIT TO CONSTRUCT. NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION.

DRAWING INDEX

COVER SHEET	1
CARNATION ROAD PLAN & PROFILE - STA 42+14.59 TO 52+80	2
MACK ROAD PLAN & PROFILE - STA 38+13.89 TO 44+53.50	3
46TH AVENUE PLAN & PROFILE - STA 40+74.49 TO 42+07.50	4
THORPE ROAD WIDENING PLAN & PROFILE - STA 33+00 TO 41+86.89	5
INTERSECTION DETAILS & ROADWAY SECTIONS	6
ROAD & DRAINAGE DETAILS	7
MASS GRADING & EROSION CONTROL PLAN	8
EROSION CONTROL DETAILS	9

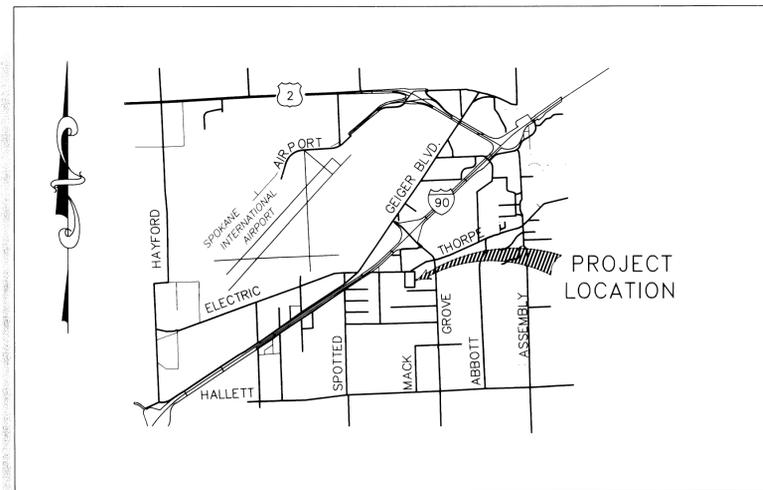
ABBREVIATIONS

ACP	ASPHALTIC CONCRETE PAVEMENT
C.S.T.C.	CRUSHED SURFACE BASE COURSE
CL	CENTERLINE
CONC.	CONCRETE
CONST.	CONSTRUCTION
D OR DIA.	DIAMETER
DR	DRIVE
DW	DRYWELL
E	EAST
E.O.P.	EDGE OF PAVEMENT
ELEV OR EL.	ELEVATION
EXIST.	EXISTING
F.M.	FORCE MAIN
FL	FLOW LINE (ELEVATION)
FT.	FEET
G	GRADE
GALV.	GALVANIZED
IE	INVERT ELEVATION
IN.	INCHES
L	LENGTH
L.F.	LINEAR FEET
LT.	LEFT
M.H.	MANHOLE
MPH	MILES PER HOUR
MAX.	MAXIMUM
MIN.	MINIMUM
MON.	MONUMENT
N	NORTH
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
P.T.	PRESSURE TREATED
PT.	POINT
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
R/W	RIGHT-OF-WAY
RD.	ROAD
RT.	RIGHT
S	SOUTH
S.R.M.	SEWER FORCE MAIN
S.S.	SANITARY SEWER
SDMH	STORM DRAIN MANHOLE
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD.	STANDARD
T	TANGENT
TA	TOP OF ASPHALT
TC OR TOC	TOP OF CURB
TYP.	TYPICAL
W	WEST
W.M.	WATER MAIN

LEGEND

⊕ ^{MH}	STORM SEWER MANHOLE
⊙	DRYWELL
⊗	GAS METER
⊕ ^{WM}	WATER METER
⊗	WATER VALVE
⊕	FIRE HYDRANT
⊕ ^{CB}	CATCH BASIN
⊕ ^{EBX}	ELECTRICAL METER BOX
⊕ ^Δ	ELECTRICAL TRANSFORMER
⊕ ^P	POWER VAULT
⊕	UTILITY POLE
←	GUY ANCHOR
⊕ ^{TR}	TELEPHONE RISER
⊕ ^{TV}	CABLE TELEVISION RISER
⊕ ^{GP}	GUARD POST
⊕	SIGN
▭	ASPHALT
▭	CONCRETE
▭	BUILDING
—x—x—x—	FENCE LINE
⊕	SPOT ELEVATION
⊕	TEMPORARY BENCHMARK
⊕	EXISTING FENCE LINE
▭	PROPOSED GRAVEL SURFACE (PRIVATE ROAD)
▭	PROPOSED CULVERT
▭	PROPOSED RIP RAP
⊕	PROPOSED WHITE DOUBLE-SIDED REFLECTOR FLEXIBLE GUIDE POST. SPACING IS 300' MAX. & 100' MIN.
—	PROPOSED SILT FENCE
▭	PROPOSED ROCK CHECK DAM
▭	PROPOSED STRAW BALES

THE DESIGN IMPROVEMENTS SHOWN IN THIS SET OF PLANS AND CALCULATIONS CONFORM TO APPLICABLE EDITIONS OF THE SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION AND THE SPOKANE COUNTY GUIDELINES FOR STORMWATER MANAGEMENT. ALL DESIGN DEVIATIONS HAVE BEEN APPROVED BY THE SPOKANE COUNTY ENGINEER. I APPROVE THESE PLANS FOR CONSTRUCTION.



VICINITY MAP

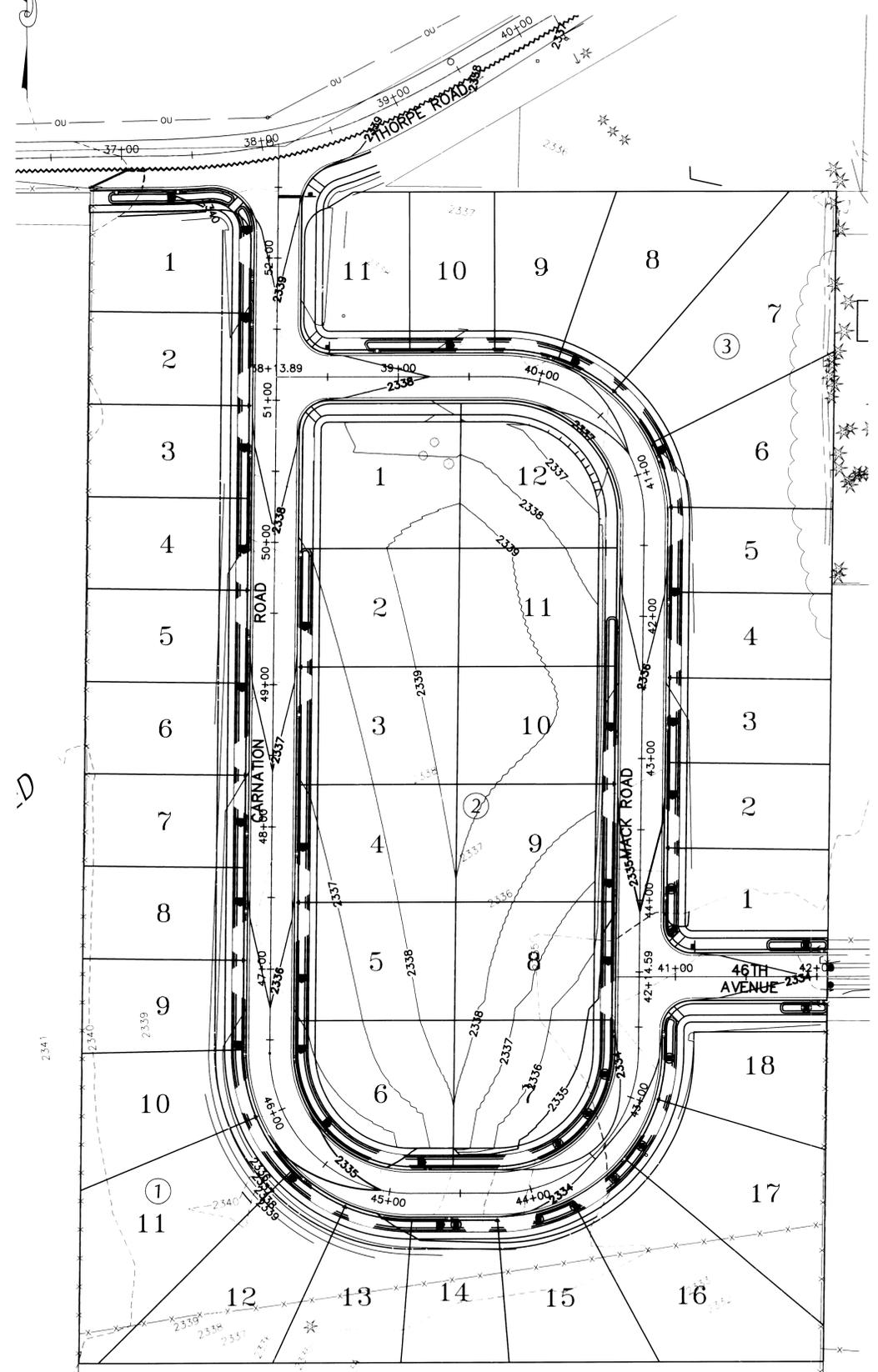
DEVELOPER'S APPROVAL
 THE UNDERSIGNED DEVELOPER OR HIS ASSIGNEE AGREES TO CONSTRUCT IMPROVEMENTS IN ACCORDANCE WITH THIS PLAN, AND UPON COMPLETION, THE DEVELOPER IS RESPONSIBLE FOR SUBMITTING REPRODUCIBLE RECORD DRAWINGS TO BE COMPLETED BY A PROFESSIONAL ENGINEER AND/OR PROFESSIONAL LAND SURVEYOR FOR REVIEW AND APPROVAL BY SPOKANE COUNTY UTILITIES DEPARTMENT AT THE COMPLETION OF CONSTRUCTION.
Randy L. Stokoff for John Raby 1/23/06
 DEVELOPER'S APPROVAL DATE
 THIS CONSTRUCTION PLAN EXPIRES ONE (1) YEAR FROM DATE OF APPROVAL.
 RECORD DRAWING APPROVAL (ENGINEER/SURVEYOR) DATE

NOTE:
 ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH 2006 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS PROMULGATED JOINTLY BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT), THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND AS AMENDED BY SPOKANE COUNTY UTILITIES.

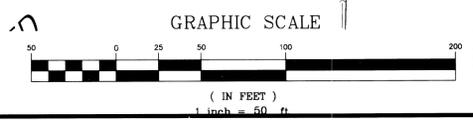
BENCH MARK DATUM
 ELEVATION: 2385.00' (NAVD 88)
 LOCATION: USCGS BENCHMARK "TANGENT 2" LOCATED AT THE INTERSECTION OF GEIGER BOULEVARD AND THORPE ROAD.

MATTHEW RAYMOND FOLEY
 STATE OF WASHINGTON
 1979
 REGISTERED PROFESSIONAL ENGINEER
 1/23/06
 EXPIRES 7-05-08

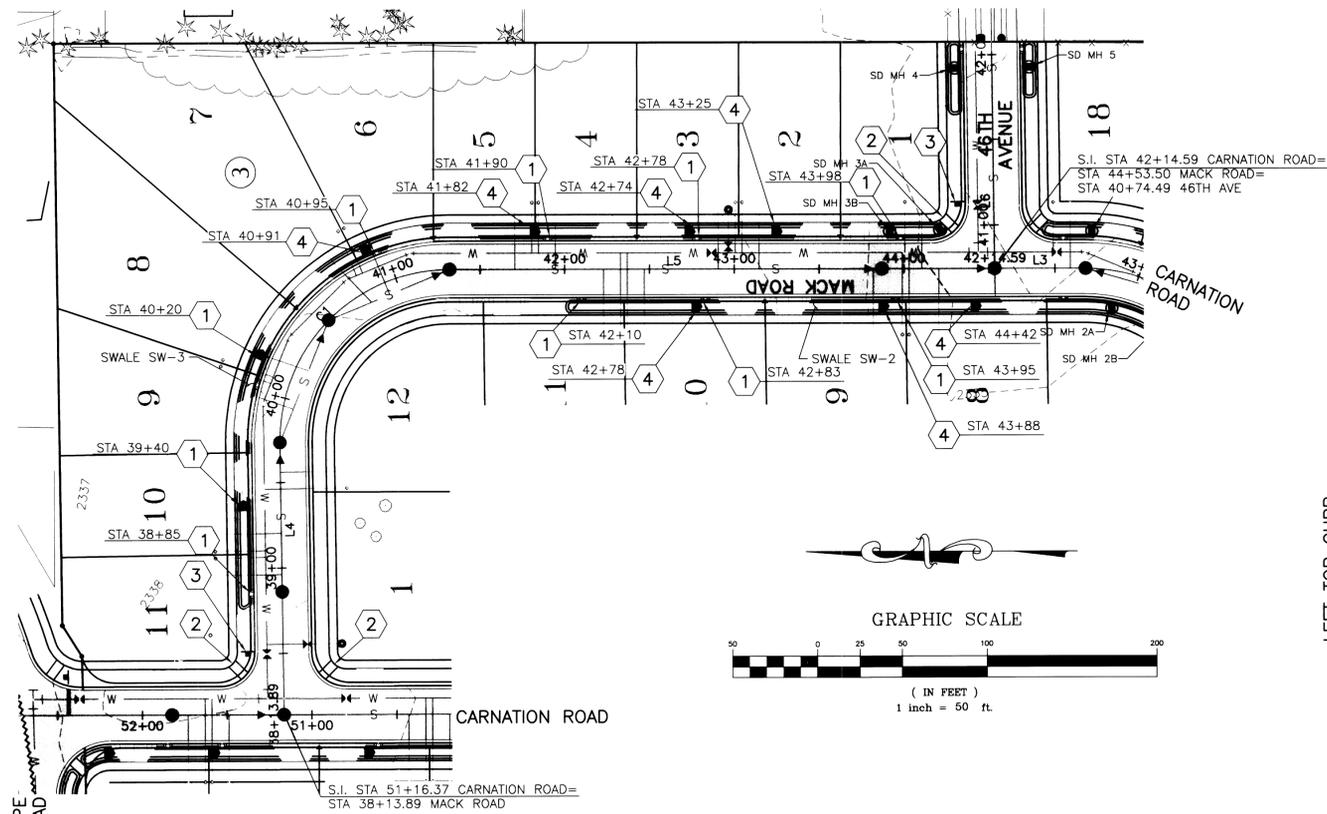
AC
 adamsandclark.com
 1720 W. Fourth Ave.
 Spokane, WA 99204
 (509) 747-4600 F(509) 747-8913
 Project No. 2004-01-052



OVERALL SITE PLAN



P-1943 Eng Road Drainage



1 MACK ROAD PLAN - STA 38+13.89 TO 44+53.50
SCALE: 1"=50'

CONSTRUCTION KEYED NOTES	
ITEM No.	DESCRIPTION
1	CURB INLET TYPE 1 PER SPOKANE COUNTY DETAIL B-8, DETAIL 4, SHEET 7.
2	STANDARD CURB RAMP PER SPOKANE COUNTY DETAIL A-5
3	STREET SIGN PER SPOKANE COUNTY DETAIL A-16
4	SWALE BERM PER DETAIL 6, SHEET 7.

SWALE DATA				
SWALE ID	BOTTOM AREA REQ (S.F.)	BOTTOM ELEV	MIN. TOP OF BERM ELEV.	STA
SW-2	5770	TOC-1'	TOC	CARNATION STA 49+96.00 TO MACK STA 42+00.85
SW-3	3480	TOC-1'	TOC	MACK STA 38+77.00 TO MACK STA 44+25.07

NOTE: SWALES SHALL BE CONSTRUCTED PER DETAILS 5 & 7, SHEET 7.

DRAINAGE STRUCTURE TABLE						
STRUCTURE	STATION	OFFSET	RIM EL.	STRUCTURE TYPE	FRAME	GRATE
SD MH 3A	44+21.06	22.88' LT	2333.84	SPOKANE CNTY DRYWELL TYPE A	TYPE 4	TYPE 4
SD MH 3B	43+91.59	22.00' LT	2333.84	SPOKANE CNTY DRYWELL TYPE A	TYPE 4	TYPE 4

NOTE: SEE DETAIL 5, SHEET 7

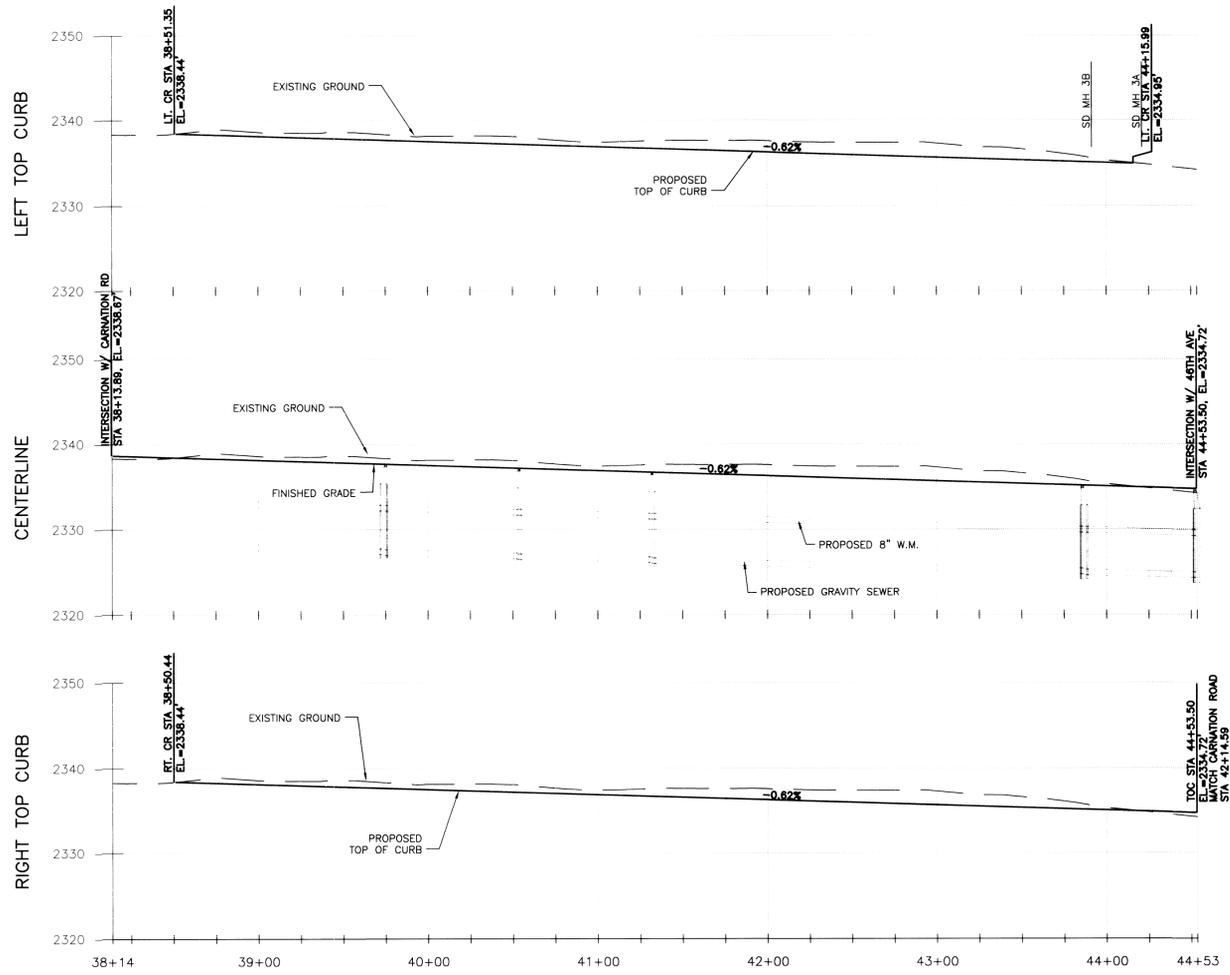
LINE TABLE		
LINE	LENGTH	BEARING
L4	159.80'	S89° 59' 32"E
L5	321.37'	S0° 47' 11"W

CURVE TABLE						
CURVE	RADIUS	LENGTH	DELTA	TANGENT	PC	PT
C1	100.00'	158.44'	90°46'43"	101.37'	STA 39+73.69	STA 41+32.13

DRIVEWAY/6" THICKENED SIDEWALK SCHEDULE

STA-CENTER OF DRIVEWAY	WIDTH
38+65.34 LT	16'
39+05.14 LT	16'
39+85.71 LT	16'
40+33.91 LT*	16'
40+57.97 LT*	16'
41+12.17 LT*	16'
41+36.78 LT*	16'
41+38.01 RT	16'
41+66.06 RT	16'
42+28.65 LT*	16'
42+56.81 LT*	16'
43+04.04 RT*	16'
43+31.91 RT*	16'
43+48.73 LT*	16'
43+76.65 LT*	16'

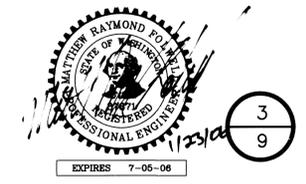
NOTES:
 -SIDEWALK SHALL BE CONSTRUCTED WITH A 6" CONCRETE SECTION THROUGH DRIVEWAY LOCATIONS
 -DRIVEWAYS SHALL BE CONSTRUCTED BY PROPERTY OWNERS
 *DRIVEWAYS TO BE INSTALLED WITH 6" D.I. CULVERT, SEE DETAIL 8, SHEET 6 FOR SECTION



2 MACK ROAD PROFILE - STA 38+13.89 TO STA 44+53.50
SCALE: H: 1"=50' V: 1"=10'

SPOKANE COUNTY ENGINEERS OFFICE
 OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
 PROJECT # 1943
 DATE ACCEPTED: 2/14/06
 ACCEPTANCE EXPIRES: 2/14/08
 PROJECT LANE MILES PERMITTED: 0.34
 CONSTRUCTION PERMIT NO. 2004-01-052
 RECORD DRAWING NO. 1943-01-052
 THESE PLANS AND PERMITS ARE FOR MAINTENANCE.
 PERMIT REQUIRED! (509) 477-8600
 NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS
 PRIOR TO CONSTRUCTION

Kandy Haloff for John Reky 1/23/06
 DEVELOPER'S APPROVAL DATE



BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT

BENCH MARK DATUM	SCALE	DATE	STAFF
TBM	HORIZONTAL 50'	08/06	DRAWN KMH/ARP
ELEVATION 2385.00' (NAVD 88)	VERTICAL 10'		CHECKED RLL

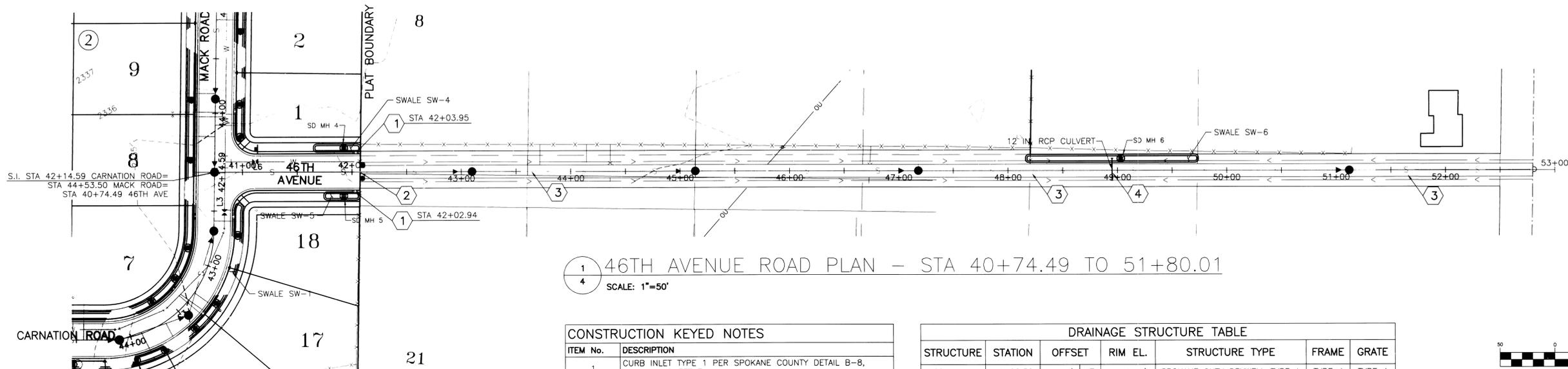
USC&GS BENCHMARK TANGENT 2" LOCATED AT THE INTERSECTION OF GEIGER BOULEVARD AND THORPE ROAD.

AC ADAMS & CLARK, Inc.
 1720 W. Fourth Ave.
 Spokane, WA 99204
 (509) 747-4600 F(509) 747-8913

WEST MEADOWS
 STREET PLAN & PROFILE
 MACK ROAD - STA 38+13.89 TO 44+53.50
 SPOKANE, WASHINGTON

TYPE OF IMPROVEMENT: STREET	
PROJECT NUMBER	PLAN NUMBER
2004-01-052	

P1943 Eng Road Drainage



1
4 46TH AVENUE ROAD PLAN - STA 40+74.49 TO 51+80.01
SCALE: 1"=50'

CONSTRUCTION KEYED NOTES	
ITEM No.	DESCRIPTION
1	CURB INLET TYPE 1 PER SPOKANE COUNTY DETAIL B-8, DETAIL 4, SHEET 7.
2	INSTALL BARRICADE PER DETAIL 1 SHEET 7
3	CONSTRUCT 12' WIDE GRAVEL ACCESS ROAD. SEE DETAIL 7, SHEET 6.
4	12" RCP PIPE, I.E. TO MATCH CULVERT PROFILE SECTION, SEE DETAIL 4, THIS SHEET

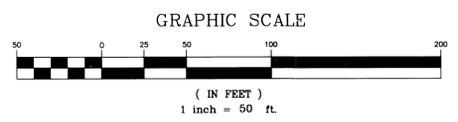
DRAINAGE STRUCTURE TABLE						
STRUCTURE	STATION	OFFSET	RIM EL.	STRUCTURE TYPE	FRAME	GRATE
SD MH 4	41+92.50	22.00' LT	2333.27'	SPOKANE CNTY DRYWELL TYPE A	TYPE 4	TYPE 4
SD MH 5	41+92.50	22.00' RT	2333.27'	SPOKANE CNTY DRYWELL TYPE A	TYPE 4	TYPE 4
SD MH 6	49+03.00	11.21' LT	2323.90'	SPOKANE CNTY DRYWELL TYPE A	TYPE 4	TYPE 4

NOTE: SEE DETAIL 5, SHEET 7

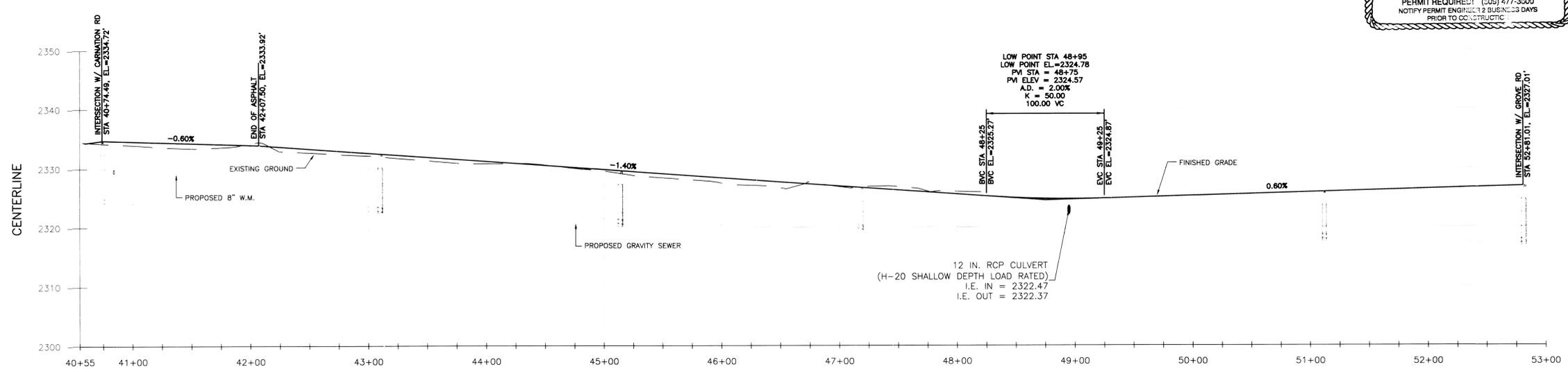
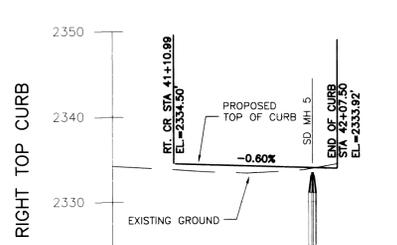
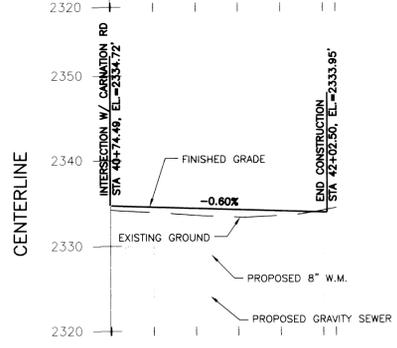
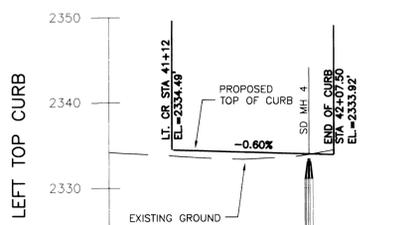
SWALE DATA				
SWALE ID	BOTTOM AREA REQ (S.F.)	BOTTOM ELEV	MIN. TOP OF BERM ELEV.	STA
SW-4	240	TOC-1'	TOC	46th STA 41+64.81 TO 46th STA 42+07.50
SW-5	180	TOC-1'	TOC	46th STA 41+74.19 TO 46th STA 42+07.50
SW-6	480	EOP-1'	EOP	46th STA 48+15.98 TO 46th STA 49+73.94

NOTE: SWALES SHALL BE CONSTRUCTED PER DETAILS 5 & 7, SHEET 7. POND BOTTOM SHALL BE INTO FREE DRAINING SOILS. OVEREXCAVATION SHALL BE DONE TO ACHIEVE THIS IF NECESSARY.

LINE TABLE		
LINE	LENGTH	BEARING
L6	133.01'	S89° 59' 32"E

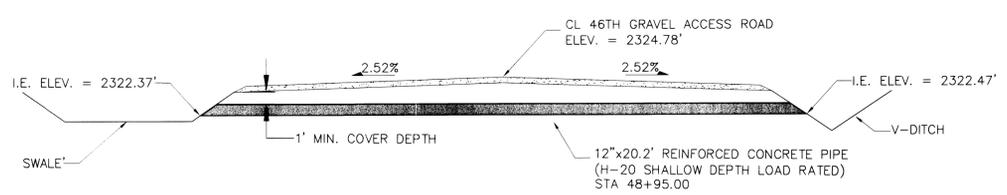


SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P1943
DATE ACCEPTED: 2/16/06
ACCEPTANCE EXPIRES: 2/16/08
PROJECT LANE MILES PUBLIC: 0.24
PROJECT LANE MILES PRIVATE: -
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS. "AS-BUILT" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.
PERMIT REQUIRED! (509) 477-3300
NOTIFY PERMIT ENGINEER 12 BUSINESS DAYS PRIOR TO CONSTRUCTION.



3
4 46TH GRAVEL ACCESS ROAD PROFILE - STA 42+07.50 TO 51+80.01
SCALE: H: 1"=50'
V: 1"=10'

2
4 46TH AVENUE PROFILE - STA 40+74.49 TO STA 42+07.50
SCALE: H: 1"=50'
V: 1"=10'



4
4 CULVERT PROFILE - 46TH AVE
SCALE: NOT TO SCALE

Developer's Approval: *Handwritten signature for John Raley* 1/23/06
DATE

RAYMOND POPE, P.E.
STATE OF WASHINGTON
PROFESSIONAL ENGINEER
1/23/06
EXPIRES 7-05-06

REVISIONS				DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT
BENCH MARK DATUM				SCALE	DATE	STAFF			
TBM				HORIZONTAL 50'	08/06	DRAWN: KMH/ARP			
ELEVATION 2385.00' (NAVD 88)				VERTICAL 10'		CHECKED: RLL			
US&GS BENCHMARK "TANGENT 2" LOCATED AT THE INTERSECTION OF GEIGER BOULEVARD AND THORPE ROAD				APPROVED: _____					

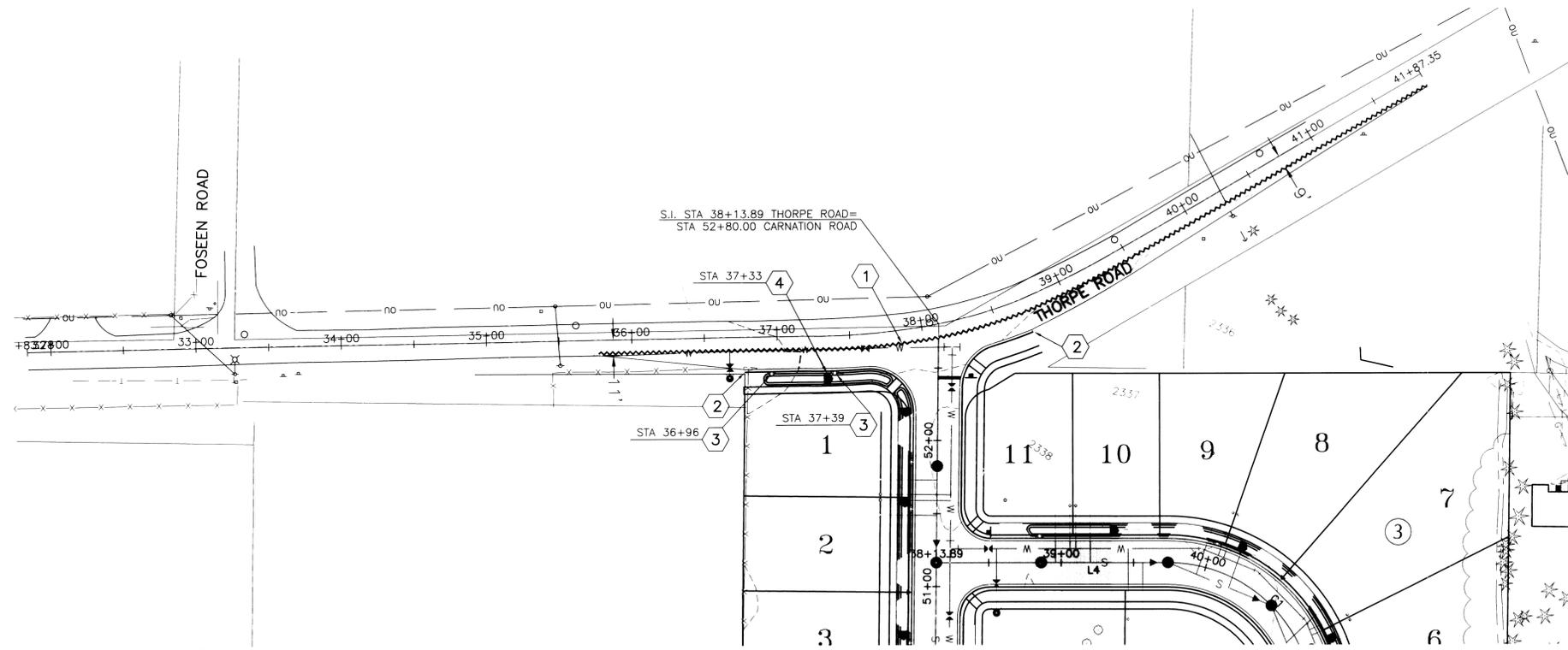


ADAMS & CLARK, Inc.
ac@adamsandclark.com
1720 W. Fourth Ave.
Spokane, WA 99204
(509) 747-4600 F(509) 747-8913

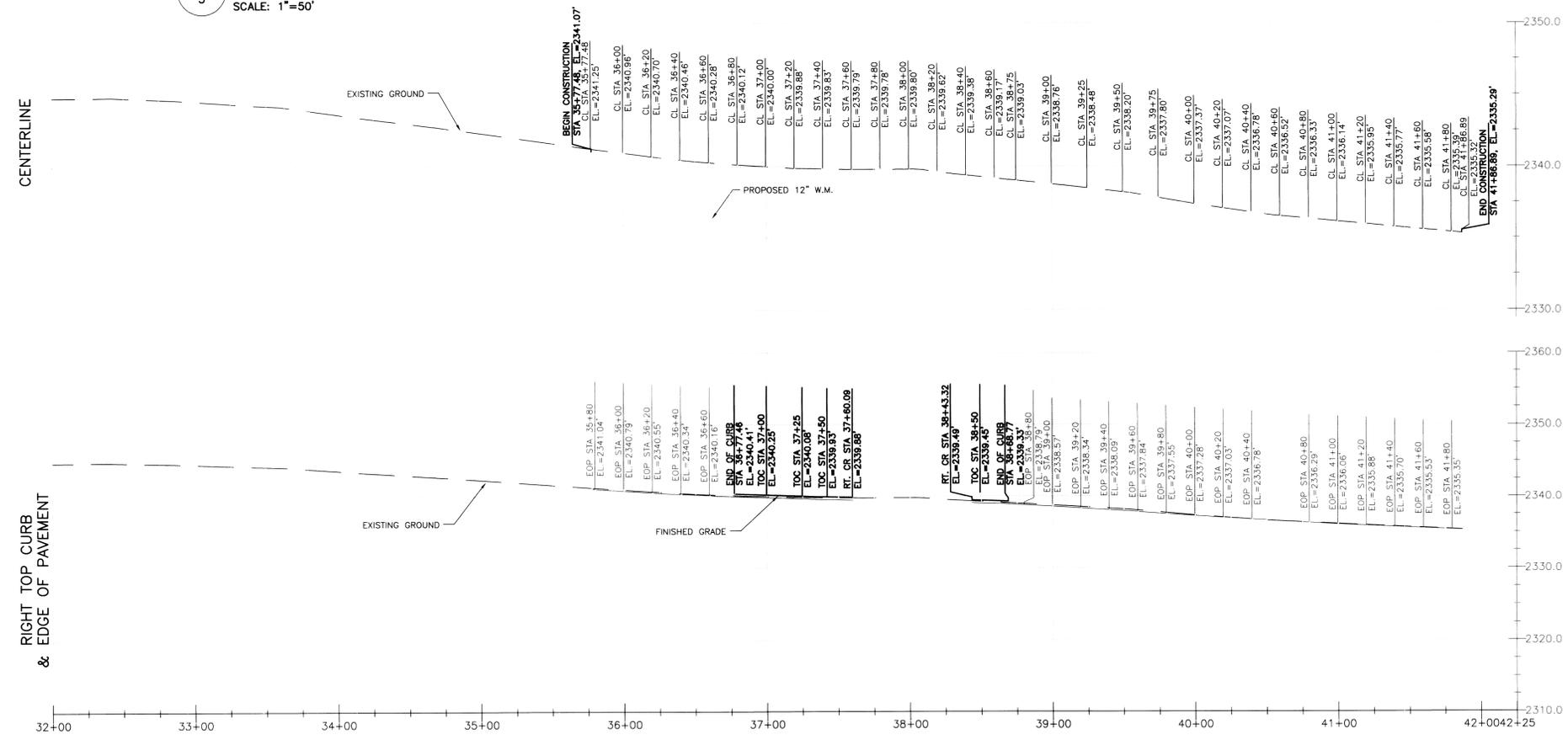
WEST MEADOWS
STREET PLAN & PROFILE
46TH AVENUE - STA 40+74.49 TO 51+80.01
SPOKANE, WASHINGTON

TYPE OF IMPROVEMENT: STREET	
PROJECT NUMBER	PLAN NUMBER
2004-01-052	

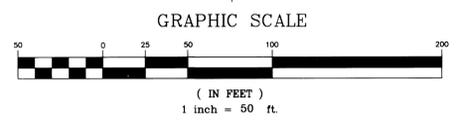
P1943 Eng Road Drainage



1
5 THORPE ROAD PLAN - STA 33+00 TO 41+86.89
SCALE: 1"=50'



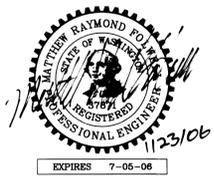
2
5 THORPE ROAD PROFILE - STA 33+00 TO 41+86.89
SCALE: H: 1"=50'
V: 1"=5'



CONSTRUCTION KEYED NOTES	
ITEM No.	DESCRIPTION
1	SAWCUT EXISTING ASPHALT
2	NOSE CURB DOWN. SEE DETAIL 2, SHEET 7.
3	CURB INLET TYPE 1 PER SPOKANE COUNTY DETAIL B-8, DETAIL 4, SHEET 7.
4	SWALE BERM PER DETAIL 5, SHEET 7.

Randy S. Schuff for John Raley 1/23/06
DEVELOPER APPROVAL DATE

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P1943
DATE ACCEPTED: 2/16/06
ACCEPTANCE EXPIRES: 2/16/08
PROJECT LANE MILES PUBLIC: 0.34
PROJECT LANE MILES PRIVATE: ---
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILT" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.
PERMIT REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION.



CALL BEFORE YOU DIG: 1-800-456-8000

BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO ACCEPT

BENCH MARK DATUM	SCALE	DATE	STAFF
TBM	HORIZONTAL 50'	01/06	DRAWN KMH/ARP
ELEVATION 2385.00' (NAVD 88)	VERTICAL 10'		CHECKED RLL

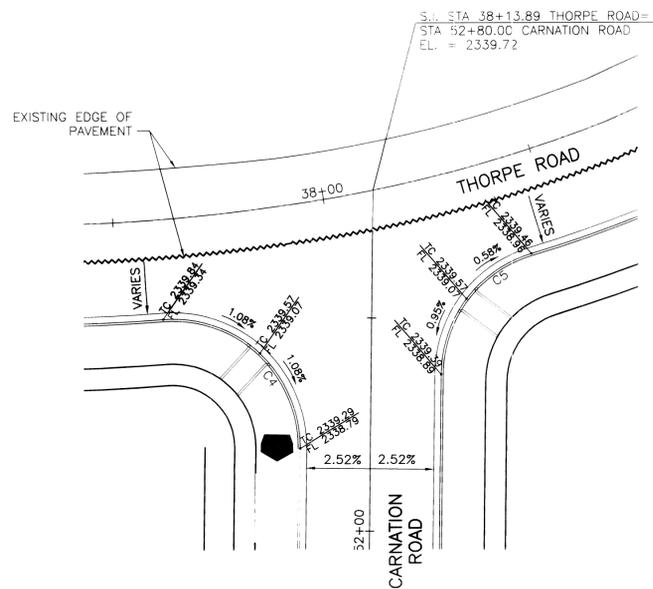
US&GS BENCHMARK "TANGENT 2" LOCATED AT THE INTERSECTION OF GEIGER BOULEVARD AND THORPE ROAD. APPROVED _____

ADAMS & CLARK, Inc.
a/adamsandclark.com
1720 W. Fourth Ave.
Spokane, WA 99204
(509) 747-4600 F(509) 747-8913

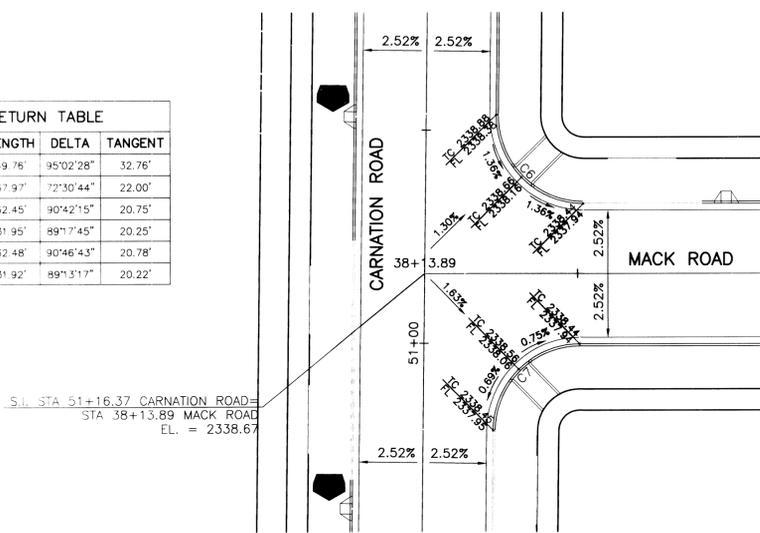
WEST MEADOWS
STREET WIDENING PLAN & PROFILE
THORPE ROAD - STA 33+00 TO 41+86.89
SPOKANE, WASHINGTON

TYPE OF IMPROVEMENT: STREET	
PROJECT NUMBER	PLAN NUMBER
2004-01-052	

P-1943 Eng Road Drainage

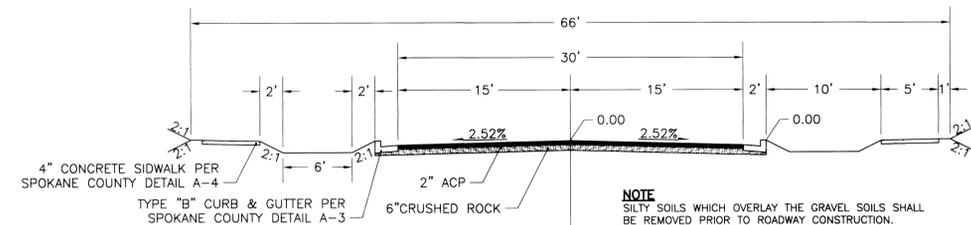


CURB RETURN TABLE				
CURVE	RADIUS	LENGTH	DELTA	TANGENT
C4	30.00'	49.76'	95°02'28"	32.76'
C5	30.00'	37.97'	72°30'44"	22.00'
C6	20.50'	32.45'	90°42'15"	20.75'
C7	20.50'	31.95'	89°17'45"	20.25'
C8	20.50'	32.48'	90°46'43"	20.78'
C9	20.50'	31.92'	89°13'17"	20.22'



1
6 THORPE ROAD & CARNATION ROAD
SCALE: 1" = 20'

2
6 CARNATION ROAD & MACK ROAD
SCALE: 1" = 20'



4
6 ROADWAY SECTION WITH SWALE
SCALE: N.T.S.

LEFT:
CARNATION ROAD
STA 42+42.85 TO 52+80.00

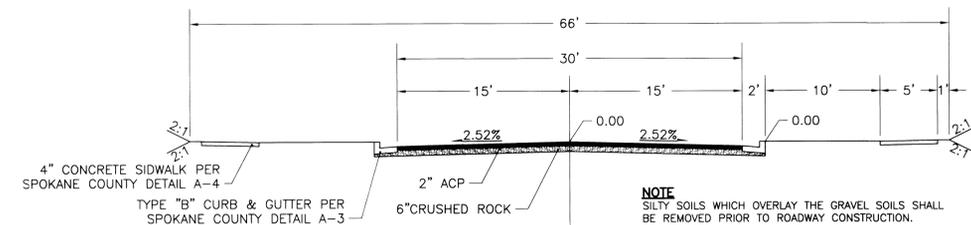
MACK ROAD
STA 38+76.42 TO 44+25.07

46TH AVE
STA 41+64.81 TO 42+07.50

RIGHT:
CARNATION ROAD
STA 42+14.59 TO 45+95.58

MACK ROAD
STA 42+00.73 TO 44+53.50

46TH AVE
STA 41+74.19 TO 42+07.50



5
6 ROADWAY SECTION WITH LANDSCAPE STRIP
SCALE: N.T.S.

LEFT:
CARNATION ROAD
STA 42+14.59 TO 42+42.85

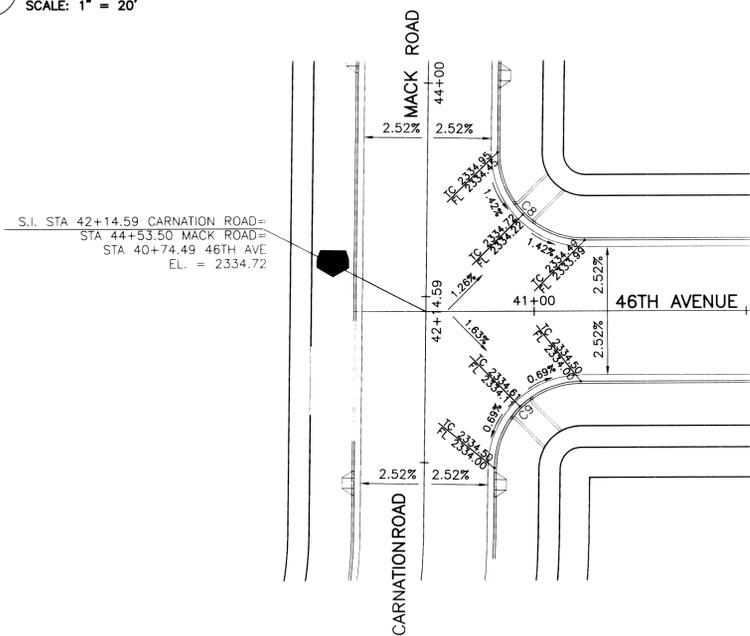
MACK ROAD
STA 38+13.89 TO 38+76.42
STA 44+25.07 TO 44+53.50

46TH AVE
STA 40+74.49 TO 41+64.81

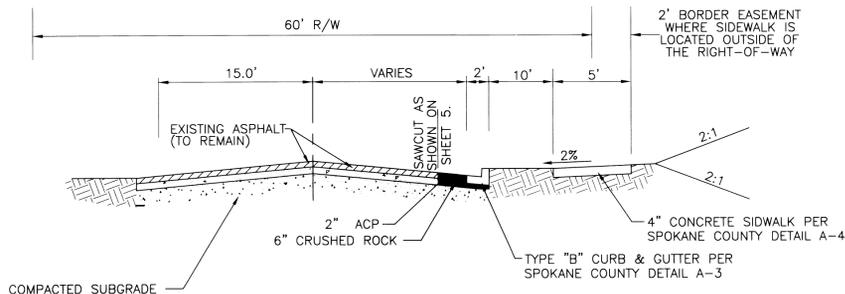
RIGHT:
CARNATION ROAD
STA 45+95.58 TO 52+80.00

MACK ROAD
STA 38+13.89 TO 42+00.73

46TH AVE
STA 40+74.49 TO 41+74.19

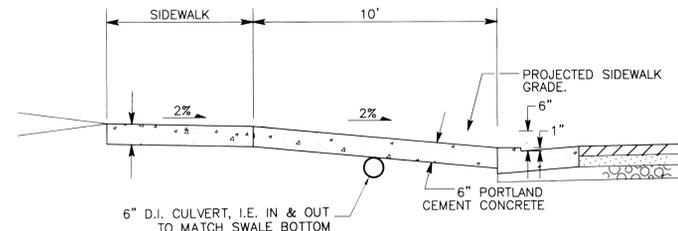


3
6 CARNATION ROAD, MACK ROAD & 46TH AVENUE
SCALE: 1" = 20'

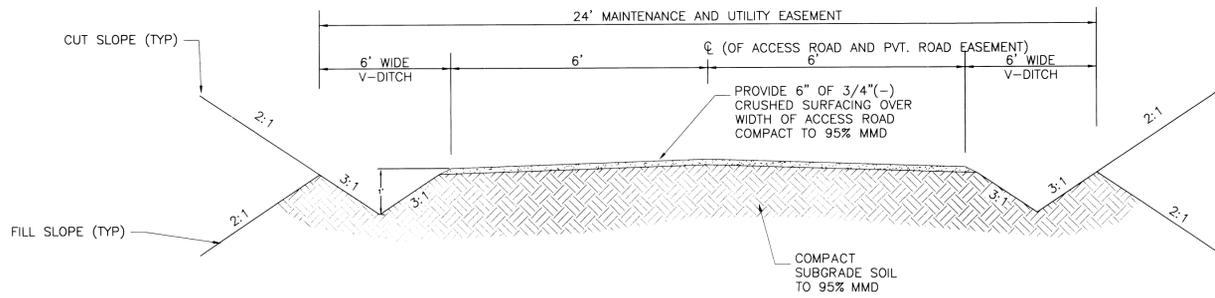


6
6 THORPE ROAD-TYPICAL STREET SECTION
SCALE: NOT TO SCALE

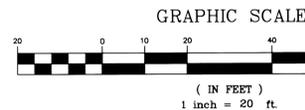
NOTE
SILTY SOILS WHICH OVERLAY THE GRAVEL SOILS SHALL BE REMOVED PRIOR TO ROADWAY CONSTRUCTION.



8
6 DRIVEWAY APPROACH SECTION
SCALE: N.T.S.



7
6 46TH GRAVEL ACCESS ROAD-TYPICAL STREET SECTION
SCALE: NOT TO SCALE
STA 42+07.50 TO 51+80.01



Kandy R. Ruff for John Raley 1/23/06
DEVELOPER'S APPROVAL DATE

SPokane County Engineers Office
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: 21943
DATE ACCEPTED: 2/16/06
ACCEPTANCE EXPIRES: 2/16/08
PROJECT LANE MILES PUBLIC: 0.84
PROJECT LANE MILES PRIVATE: 0.84
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILTS" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROAD AND DRAINAGE FACILITIES FOR MAINTENANCE.
PERMIT REQUIRED! (509) 477-3600
NOTIFY PERMITS ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

MATTHEW RAYMOND BOYD
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
1/23/06
EXPIRES 7-05-06

BENCH MARK DATUM	SCALE	DATE	STAFF
TBM	HORIZONTAL 20'	01/06	DRAWN_KMH/ARP
ELEVATION 2385.00' (NAVD 88)	VERTICAL 10'		CHECKED_RLL

ADAMS & CLARK, Inc.
ac@adamsandclark.com
1720 W. Fourth Ave.
Spokane, WA 99204
(509) 747-4600 F(509) 747-8913

WEST MEADOWS
INTERSECTION DETAILS
STREET SECTIONS
SPOKANE, WASHINGTON

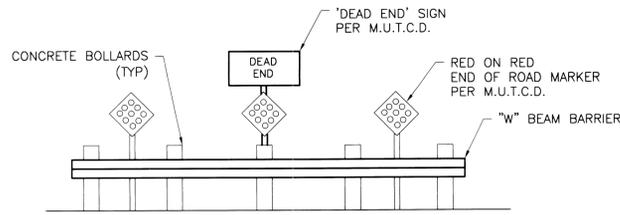
TYPE OF IMPROVEMENT: STREET	
PROJECT NUMBER	PLAN NUMBER
2004-01-052	

BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT

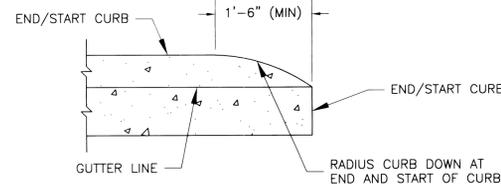
P.1943 Eng Road Drainage

GENERAL CONSTRUCTION NOTES:

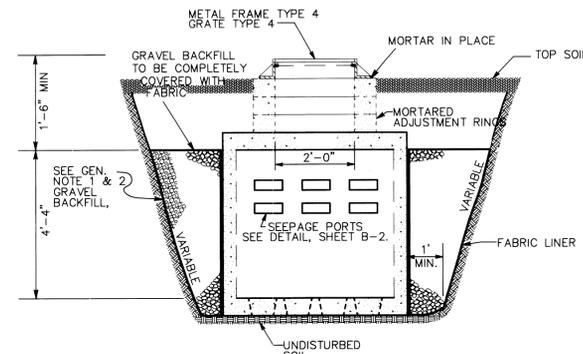
- ALL WORK AND MATERIALS SHALL BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION", AND AS AMENDED.
- LOCATIONS OF EXISTING UTILITIES SHOWN IN PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES. ANY CONFLICTING UTILITIES SHALL BE RELOCATED PRIOR TO CONSTRUCTION OF ROAD AND DRAINAGE FACILITIES.
- THE CONTRACTOR IS REQUIRED TO HAVE A COMPLETE SET OF THE APPROVED ROAD AND DRAINAGE PLANS ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- IF THE CONTRACTOR DISCOVERS ANY DISCREPANCIES BETWEEN THE PLANS AND EXISTING CONDITIONS ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER AND THE SPOKANE COUNTY ENGINEER'S OFFICE.
- FOR CONSTRUCTION OF DRYWELLS, INSTALL FILTER FABRIC (AMOCO 4545 OR APPROVED EQUIVALENT) BETWEEN THE WASHED DRAINROCK AND THE NATIVE SOILS.
- PRIOR TO SITE CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES. CALL THE UNDERGROUND UTILITY LOCATION SERVICE AT (509) 456-8000 BEFORE YOU DIG.
- FOR ANY CURB GRADES LESS THAN 0.8% (0.0080 FT/FT), A WASHINGTON STATE-LICENSED PROFESSIONAL LAND SURVEYOR SHALL VERIFY THAT THE CURB FORMS ARE AT THE GRADES NOTED ON THE APPROVED PLANS. PRIOR TO PLACEMENT OF CURB MATERIAL, THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING AND COORDINATING WORK WITH THE PROFESSIONAL LAND SURVEYOR.
- THE CONTRACTOR SHALL EMPLOY A LICENSED SURVEYOR TO VERIFY THAT THE CROSS-GUTTER FORMS ARE AT THE CORRECT PLANE GRADE PRIOR TO CONCRETE PLACEMENT. THE CROSS-GUTTERS SHALL BE CONSTRUCTED PRIOR TO PAVING, AND THE PAVEMENT SHALL THEN MATCH THE EDGE OF CONCRETE GUTTER.
- THE FLOOR OF A GRASSED PERCOLATION AREA (GPA) SWALE INCLUDES THE LEVEL PORTION OF THE FLOOR OF THE SWALE, AND THE SIDESLOPES OF THE SWALE UP TO THE GPA OVERFLOW ELEVATION OR TOP OF DRYWELL. THE SOIL LOCATED IN THE FLOOR OF THE GPA SWALE SHALL BE A MEDIUM TO WELL-DRAINING MATERIAL, WITH A MINIMUM INFILTRATION RATE OF 0.5 INCHES PER HOUR. THE ENGINEER SHALL PROVIDE A WRITTEN STATEMENT WHICH VERIFIES THAT ALL GPA SWALES CONFORM TO THIS REQUIREMENT. THIS WRITTEN STATEMENT SHALL BE SUBMITTED TO THE SPOKANE COUNTY ENGINEER'S OFFICE PRIOR TO INSTALLING FINISHED LANDSCAPING/SOD AND PRIOR TO FINAL ACCEPTANCE. THE SWALE FLOOR MATERIAL SHALL BE INSTALLED TO A NATIVE SOIL STRATUM WHICH ALSO MEETS OR EXCEEDS THIS MINIMUM PERCOLATION RATE OF 0.5 INCHES PER HOUR.
- ALL CURB DATA IS TO BACK OF CURB, UNLESS SHOWN OTHERWISE.
- REFER TO THE STREET & DRAINAGE PLANS FOR ALL DRAINAGE FEATURES.
- SIGN/POST LOCATIONS SHALL BE FIELD LOCATED BY THE SPOKANE COUNTY PRIOR TO INSTALLATION. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL CONTACT SPOKANE COUNTY SIGN AND MARKETING SUPERVISOR, AT LEAST TWO COUNTY WEEKDAY WORKING DAYS, TO ARRANGE FOR A CITY REPRESENTATIVE TO FIELD LOCATE SAID SIGN/POSTS.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS UNLESS OTHERWISE STATED ON THESE PLANS.



1 "W" BEAM BARRIER DETAIL
SCALE: N.T.S.



2 CURB NOSE PROFILE DETAIL
SCALE: N.T.S.

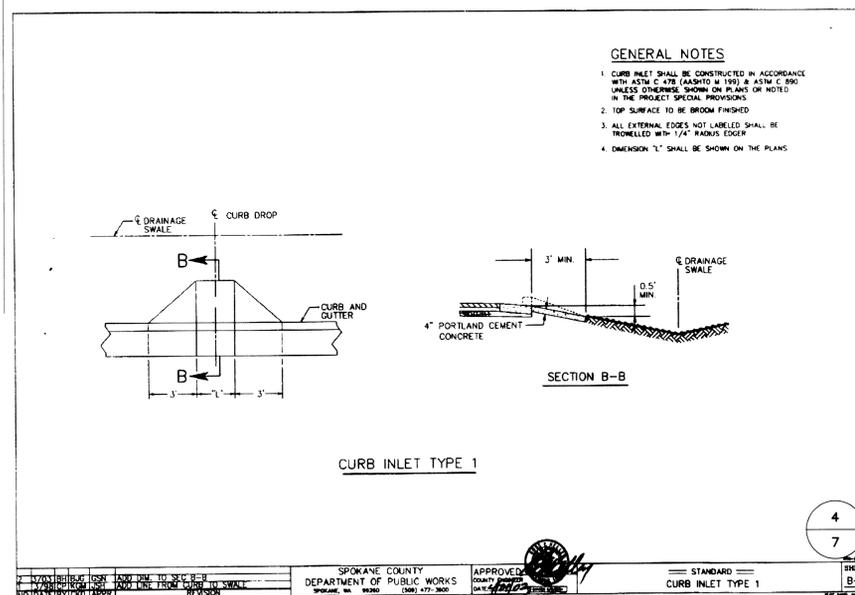


3 FLAT TOPPED DRYWELL
SCALE: N.T.S.

GENERAL NOTES

- GRAVEL BACKFILL QUANTITY FOR DRYWELLS: TYPE "A" - 30 CUBIC YARDS MINIMUM / 42 TONS.
- SPECIAL BACKFILL MATERIAL FOR DRYWELLS SHALL CONSIST OF WASHED GRAVEL GRADED FROM 1" TO 3" WITH A MAXIMUM OF 5% PASSING THE U.S. No. 200 SCREEN, AS MEASURED BY WEIGHT. A MAXIMUM OF 10% OF THE AGGREGATE, AS MEASURED BY WEIGHT, MAY BE CRUSHED OR FRACTURED ROCK. THE REMAINING 90% SHALL BE NATURALLY OCCURRING UNFRACTURED MATERIAL.
- FABRIC SHALL BE MODERATE SURVIVABILITY AS OUTLINED IN STANDARD SPECIFICATIONS 9-33
- SEE STANDARD PLANS SHEETS B-2 AND B-3 FOR PRECAST CONCRETE DETAILS.
- ADJUSTMENT BLOCKS SHALL BE CEMENT CONCRETE.
- PRECAST RISER MAY BE USED IN COMBINATION WITH OR IN LIEU OF ADJUSTING BLOCKS.

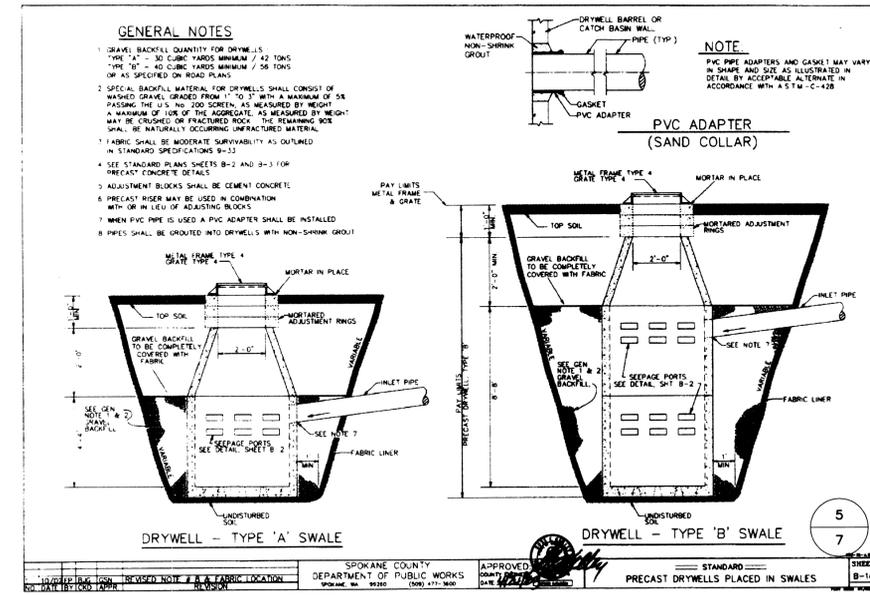
CURB INLET SCHEDULE	
STA	L
CARNATION	
42+55.00 RT	2'
42+55.00 LT	2'
43+36.97 RT	2'
43+36.97 LT	2'
44+58.00 LT	2'
44+73.00 RT	2'
45+66.00 RT	2'
45+55.00 LT	2'
46+35.00 RT	2'
46+40.00 LT	2'
47+81.00 RT	2'
47+40.00 LT	2'
47+95.00 LT	2'
48+78.79 RT	2'
49+91.44 RT	2'
49+32.00 LT	2'
50+61.00 LT	2'
51+53.00 LT	2'
51+85.00 LT	2'
MACK	
38+85.15 LT	2'
40+03.00 LT	2'
40+95.00 LT	2'
41+90.00 LT	2'
42+10.00 RT	2'
42+78.00 LT	2'
42+83.00 RT	2'
43+98.00 LT	2'
43+95.00 RT	2'
46TH	
42+02.94 RT	2'
42+03.59 LT	2'
THORPE	
36+96.00 RT	2'
37+39.00 RT	2'



CURB INLET TYPE 1

GENERAL NOTES

- CURB INLET SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (ASPHALT) OR ASTM C 890 (CONCRETE) UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.
- TOP SURFACE TO BE BROOM FINISHED.
- ALL EXTERNAL EDGES NOT LABELED SHALL BE TROMMELED WITH 1/4" RADIUS EDGER.
- DIMENSION "L" SHALL BE SHOWN ON THE PLANS.

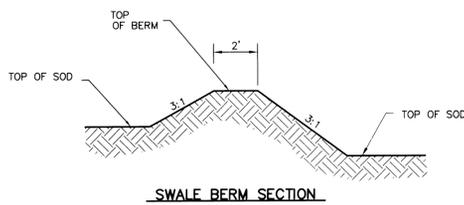


DRYWELL - TYPE "A" SWALE

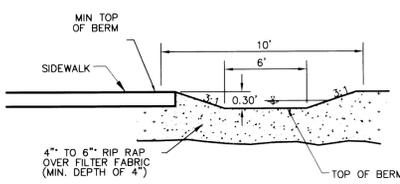
DRYWELL - TYPE "B" SWALE

GENERAL NOTES

- GRAVEL BACKFILL QUANTITY FOR DRYWELLS: TYPE "A" - 30 CUBIC YARDS MINIMUM / 42 TONS. TYPE "B" - 40 CUBIC YARDS MINIMUM / 56 TONS. OR AS SPECIFIED ON ROAD PLANS.
- SPECIAL BACKFILL MATERIAL FOR DRYWELLS SHALL CONSIST OF WASHED GRAVEL GRADED FROM 1" TO 3" WITH A MAXIMUM OF 5% PASSING THE U.S. No. 200 SCREEN, AS MEASURED BY WEIGHT. A MAXIMUM OF 10% OF THE AGGREGATE, AS MEASURED BY WEIGHT, MAY BE CRUSHED OR FRACTURED ROCK. THE REMAINING 90% SHALL BE NATURALLY OCCURRING UNFRACTURED MATERIAL.
- FABRIC SHALL BE MODERATE SURVIVABILITY AS OUTLINED IN STANDARD SPECIFICATIONS 9-33
- SEE STANDARD PLANS SHEETS B-2 AND B-3 FOR PRECAST CONCRETE DETAILS.
- ADJUSTMENT BLOCKS SHALL BE CEMENT CONCRETE.
- PRECAST RISER MAY BE USED IN COMBINATION WITH OR IN LIEU OF ADJUSTING BLOCKS.
- WHEN PVC PIPE IS USED A PVC ADAPTER SHALL BE INSTALLED.
- PIPES SHALL BE GROUDED INTO DRYWELLS WITH NON-SHANK GROUT.

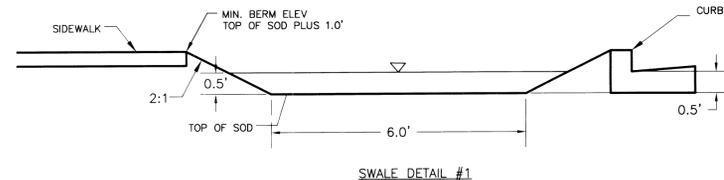


SWALE BERM SECTION



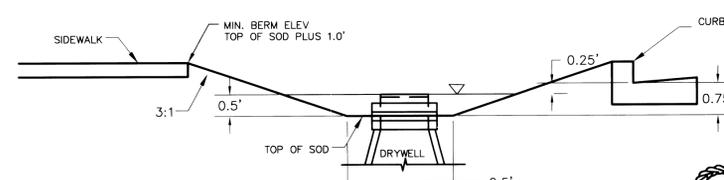
SWALE BERM ELEVATION

6 SWALE BERM DETAIL
SCALE: N.T.S.



SWALE DETAIL #1

7 SWALE DETAIL
SCALE: N.T.S.



8 GRASSED PERCOLATION AREA DETAIL
SCALE: N.T.S.

Randy J. Rabuff for John Raley 1/23/06
DEVELOPER'S APPROVAL DATE

SPOKANE COUNTY ENGINEER'S OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P1943
DATE ACCEPTED: 2/16/06
ACCEPTANCE EXPIRES: 2/16/08
PROJECT LANE MILES PUBLIC: 0.34
PROJECT LANE MILES PRIVATE: _____
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILTS" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.
PERMIT REQUIREMENT: (202) 477-3600
NOTIFY PERMIT ENGINEER 12 BUSINESS DAYS PRIOR TO COMMENCEMENT

MATTHEW RAYMOND FOLEY
REGISTERED PROFESSIONAL ENGINEER
1/23/06
EXPIRES 7-05-08

CALL BEFORE YOU DIG: 1-800-456-8000

BENCH MARK DATUM	SCALE	DATE	STAFF
TBM	HORIZONTAL 50'	01/06	DRAWN_KMH/ARP
ELEVATION 2385.00' (NAVD 88)	VERTICAL 10'		CHECKED_RLL

US&GS BENCHMARK "TANGENT 2" LOCATED AT THE INTERSECTION OF GEIGER BOULEVARD AND THORPE ROAD

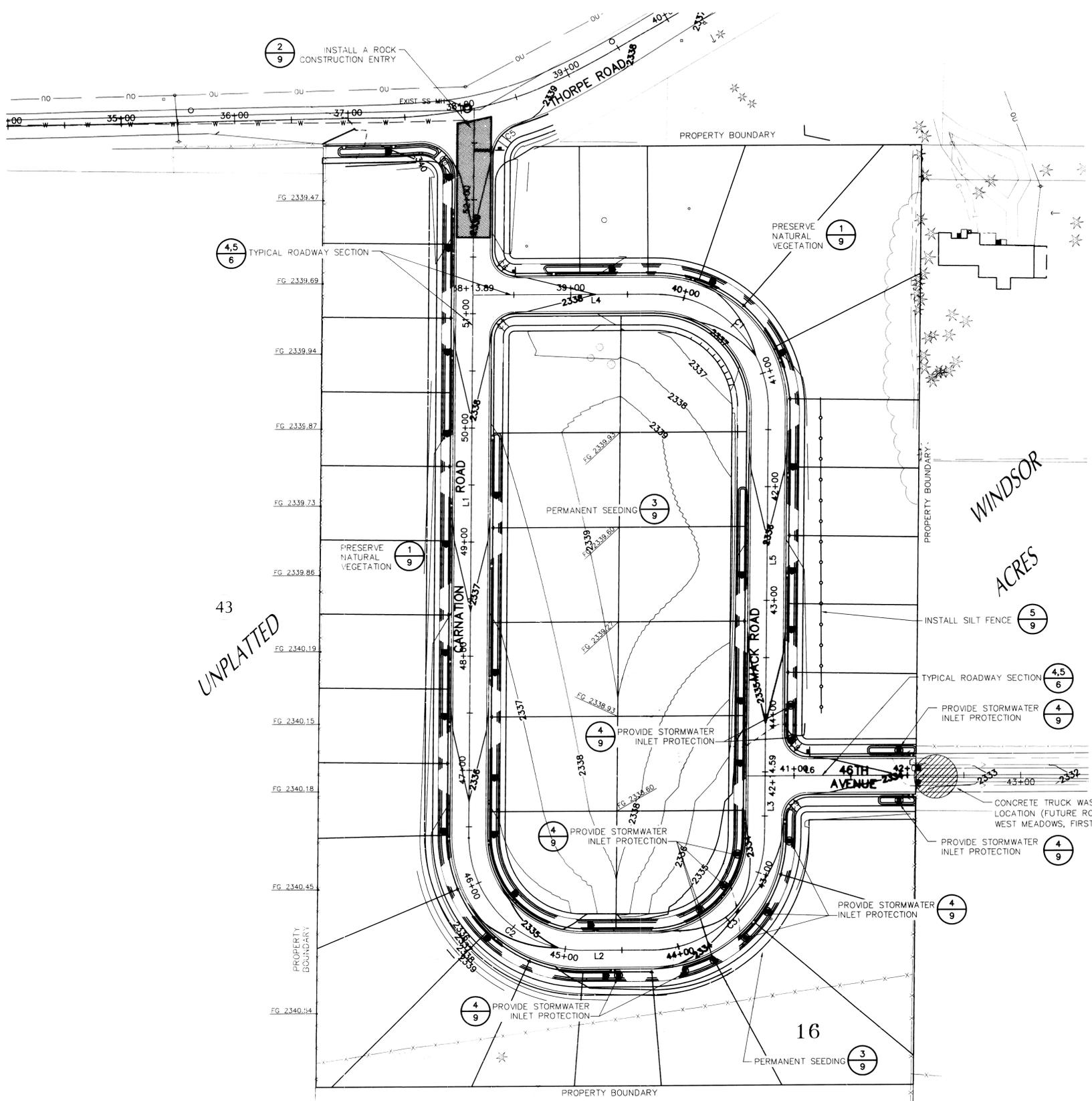


ADAMS & CLARK, Inc.
adamsandclark.com
1720 W. Fourth Ave.
Spokane, WA 99204
(509) 747-4600 F(509) 747-8913

WEST MEADOWS
STREET & DRAINAGE
CONSTRUCTION DETAILS
SPOKANE, WASHINGTON

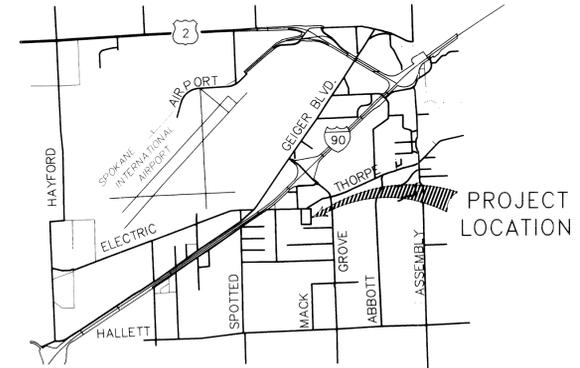
TYPE OF IMPROVEMENT: STREET	
PROJECT NUMBER	PLAN NUMBER
2004-01-052	

P-1943 eng Road Drainage



ESTIMATED EXCAVATION / EMBANKMENT QUANTITIES		
ROADWAY	EXCAVATION (CY)	EMBANKMENT (CY)
CARNATION ROAD	5,262	179
MACK ROAD	2,015	3
46TH AVENUE	58	89
THORPE WIDENING	164	46
BLOCK 2	1,293	2,456
TOTAL	8,792	2,773

NOTE: THE VOLUMES LISTED ABOVE ARE BASED UPON VOLUMETRIC CALCULATIONS AND HAVE NOT BEEN ADJUSTED FOR SHRINK OR SWELL.



UNPLATTED PORTIONS OF THE GOVERNMENT LOTS 1, 2, 7 AND 8 IN THE NORTHEAST QUARTER OF SECTION 4, TOWNSHIP 24 NORTH, RANGE 42 EAST, W.M., SPOKANE COUNTY, WASHINGTON

SITE LOCATION
4600 THORPE ROAD

PLAN PREPARATION
MATTHEW R. FOLWELL, P.E.
ADAMS & CLARK, INC.
1720 W. FOURTH AVE.
SPOKANE, WA 99204

ON-SITE CONTACT, PROPERTY OWNER & APPLICANT
JOHN C. RABY
13306 W. WIGWAM RD.
SPOKANE, WA 99224
(509) 844-2668

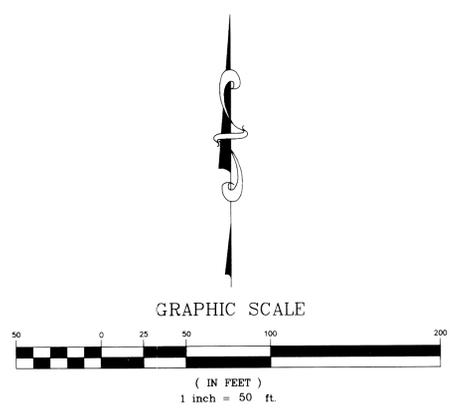
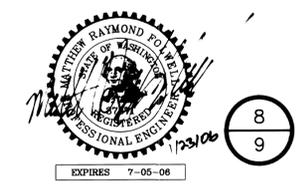
- NOTES:
1. THE PROJECT IS CURRENTLY VEGETATED WITH ALFALFA & GRASSES.
 2. THIS PROJECT CONSISTS OF THE CONSTRUCTION OF RESIDENTIAL STREETS AND INFILTRATIVE SWALES WITH ASSOCIATED DRYWELLS.
 3. EROSION AND SEDIMENT CONTROL MEASURES WILL CONSIST OF THE INSTALLATION OF FILTER FENCE ALONG FILL SECTIONS, AS SHOWN ON THIS DRAWING AND INLET PROTECTION.
 4. SOILS AT THIS SITE ARE CLASSIFIED BY THE SCS HESSELTINE SILT LOAM & CHENEY SILT SOILS

I CERTIFY THAT THIS PLAN MEETS THE REQUIREMENTS FOR E.S.C AS LISTED IN CHAPTER 4.5 OF THE GUIDELINE FOR STORMWATER MANAGEMENT.

Matthew R. Folwell 1/23/06
MATTHEW R. FOLWELL, P.E. DATE

John Raby 1/23/06
DEVELOPER'S APPROVAL DATE

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT # **P1943**
DATE ACCEPTED **2/16/06**
ACCEPTANCE EXPIRES **2/16/08**
PROJECT LANE MILES PUBLIC **0.34**
PROJECT LANE MILES PRIVATE _____
CONSTRUCTION DOCUMENT # AND DATE PREPARED _____
RECORD DRAWINGS *AS BUILT* TO BE PREPARED FOR SUBMITTAL TO COUNTY ACCEPTANCE AND RECORDING OF THE ROADS AND DRAINAGE FACILITIES PER RCW 2.04 PERMIT REQUIRED
NOTIFY PERMITTING AGENCY _____
PROJECT NO. _____



1
9 EROSION CONTROL PLAN
SCALE: N.T.S.

61 UNPLATTED

BENCH MARK DATUM	SCALE	DATE	STAFF
TBM	HORIZONTAL 50'	01/06	DRAWN KM/ARP
ELEVATION 2385.00' (NAVD 88)	VERTICAL 10'		CHECKED_RLL
US&GS BENCHMARK "ANGENT 2" LOCATED AT THE LOCATION INTERSECTION OF GEIGER BOULEVARD AND THORPE ROAD APPROVED _____			

AC ADAMS & CLARK, Inc.
ac@adamsandclark.com
1720 W. Fourth Ave.
Spokane, WA 99204
(509) 747-4800 (F509) 747-8913

WEST MEADOWS
MASS GRADING AND EROSION CONTROL
GRADING AND SITE PLAN
SPOKANE, WASHINGTON

TYPE OF IMPROVEMENT:	STREET
PROJECT NUMBER	PLAN NUMBER
2004-01-052	

BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT

P-1943 Eng. Land Drainage

