NORTHVIEW ESTATES - FIRST ADDITION

SPOKANE COUNTY, WASHINGTON

S ½ OF SECTION 13, T26N, R42E, W.M.

STANDARD CONSTRUCTION NOTES

1. ALL WORK AND MATERIALS SHALL BE IN CONFORMANCE WITH THE "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION" 2001, AND AS AMENDED.
2. LOCATIONS OF EXISTING UTILITIES SHOWN IN THE 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.
3. THE CONTRACTOR IS REQUIRED TO HAVE A COMPLETE SET OF THE APPROVED ROAD AND DRAINAGE PLANS ON THE JOB WHENEVER CONSTRUCTION IS IN PROGRESS.
4. 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.
5. PRIOR TO SITE CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES.
6. FOR ANY CURB GRADES LESS THAN 0.8% (0.008 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.
7. 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

SHEET INDEX

1. TITLE SHEET
2. TYPICAL ROADWAY SECTIONS
3. ORCHARD ROAD PLAN & PROFILE
4. ORCHARD ROAD PLAN & PROFILE
5. BRAEDEN LANE PLAN & PROFILE
6. BRAEDEN LANE PLAN & PROFILE AND CATCH BASIN PROFILES
7. NORTHVIEW LANE PLAN & PROFILE AND CATCH BASIN PROFILES
8. WESTOVER LANE PLAN & PROFILE
9. INTERSECTION PLANS
10. DETENTION POND PLAN AND DETAILS

STANDARD DRAWINGS

		SYMBOL
SPOKANE COUNTY		
CURBS & GUTTERS, TYPE B	A-3	
STREET NAME SIGNS	A-16	
CATCH BASIN, TYPE 1	B-4	
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CATCH BASIN & INLET TYPE 2	B-7	
METAL FRAME, TYPE 2	B-11	
METAL GRATE, TYPE 3	B-14	

NOTE: FOR TYPE 1 INLETS AND CATCH BASINS, THE TOP OF GRATE SHALL BE INSTALLED 1" LOWER THAN THE PROJECTED GUTTER GRADE.

FOR CATCH BASINS AND INLET TYPE 2, THE TOP OF GRATE SHALL BE 2" LOWER THAN THE GUTTER GRADE. SEE STD. DWG B-18.

WSDOT		
GRATE INLET, TYPE 2 (SET FLUSH WITH GUTTER)	B-4c	
FRAME AND VANED GRATES FOR GRATE INLET TYPE 2	B-4d	

ENGINEER'S CERTIFICATE

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

BASIS OF BEARING

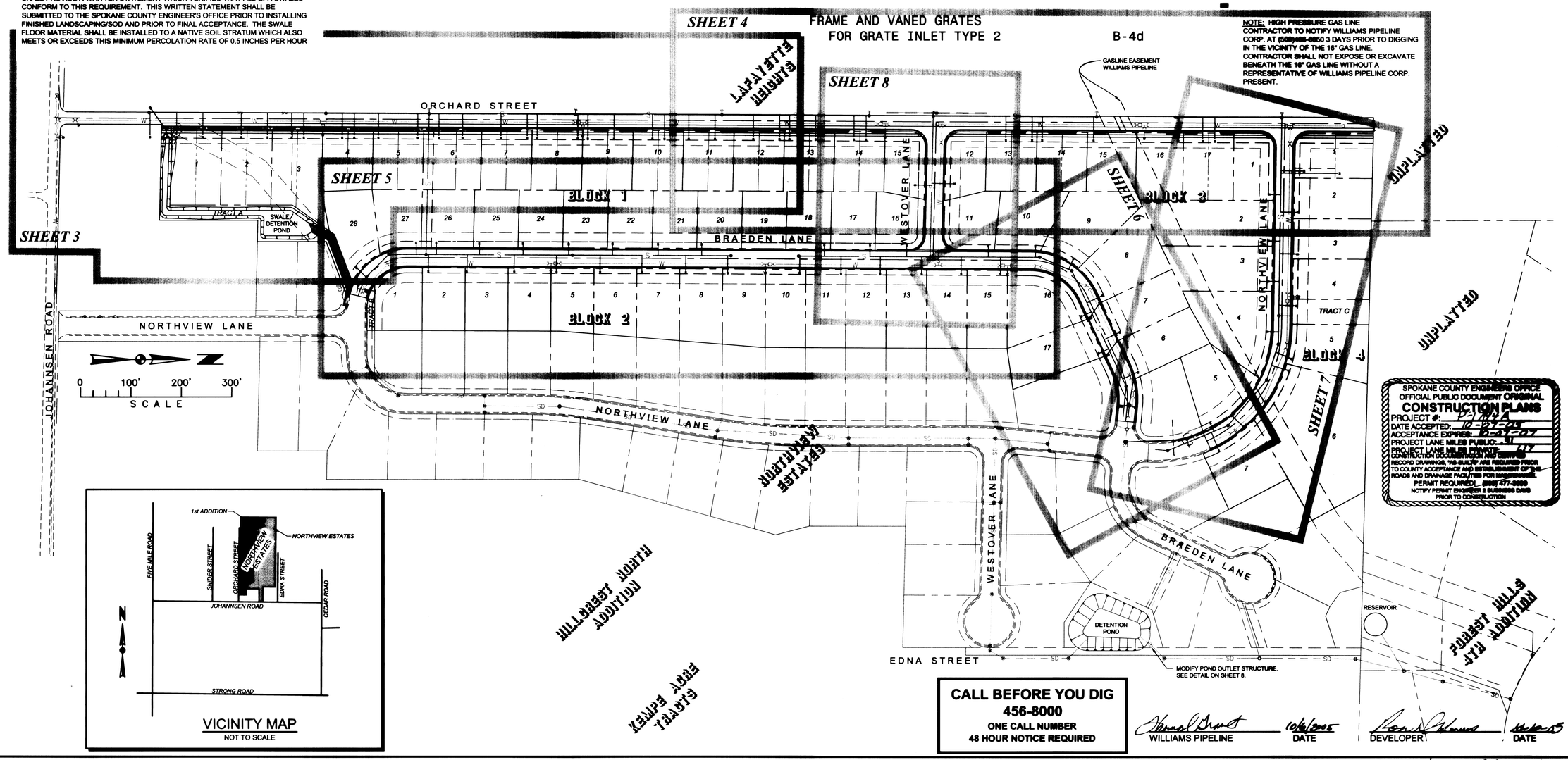
THE BASIS OF BEARING (N88°44'00"W) IS THE SOUTH SECTION LINE OF SECTION 13, TOWNSHIP 26 NORTH, RANGE 42 EAST, W.M., SPOKANE COUNTY, WASHINGTON.

BENCHMARK

BRASS CAP IN MONUMENT CASE AT INTERSECTION OF FIVE MILE ROAD AND JOHANSEN ROAD.

ELEVATION = 2388.56 (NAVD 88 DATUM)

NOTE: HIGH PRESSURE GAS LINE CONTRACTOR TO NOTIFY WILLIAMS PIPELINE CORP. AT (509)466-8650 3 DAYS PRIOR TO DIGGING IN THE VICINITY OF THE 16" GAS LINE. CONTRACTOR SHALL NOT EXPOSE OR EXCAVATE BENEATH THE 16" GAS LINE WITHOUT A REPRESENTATIVE OF WILLIAMS PIPELINE CORP. PRESENT.



VICINITY MAP

NOT TO SCALE

SPOKANE COUNTY ENGINEERING OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: D-94
DATE ACCEPTED: 10-25-05
ACCEPTANCE EXPIRES: 10-25-07
PROJECT LANE MILES PUBLIC: 1.91
PROJECT LANE MILES PRIVATE: 0.07
CONSTRUCTION DOCUMENTATION AND TESTING OF
RECORD DRAWINGS, "AS-BUILTS" 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
456-8000
ONE CALL NUMBER
48 HOUR NOTICE REQUIRED

WILLIAMS PIPELINE — DATE 10/6/2005

DEVELOPER — DATE 10-25-05

EXPIRES: 10/23/06

THOMAS, DEAN & HOSKINS, INC.
ENGINEERING CONSULTANTS
GREAT FALLS–BOZEMAN–KALISPELL
MONTANA
WASHINGTON
IDAHO
SPOKANE
LEWISTON

TD&H

REVISIONS
DESCR DATE BY
DESCR DATE BY
DESCR DATE BY

DRAWN BY: EJD
DESIGNED BY: DAW
QUALITY CHECK: CWM
DATE: 10/5/05
JOB NO. 501-062
FIELDBOOK SDR

NORTHVIEW ESTATES - FIRST ADDITION
SPOKANE COUNTY, WASHINGTON

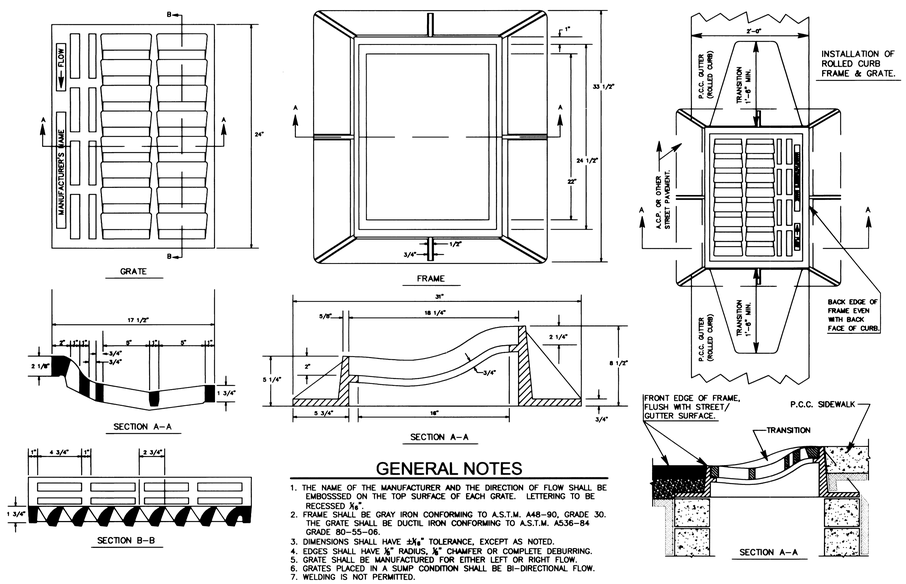
TITLE SHEET

CAD NO501-062-SD01.DWG

SHEET 1 OF 10

P-17944 ENG- Road & Drainage

1794-A Engineering Rd & Drainage

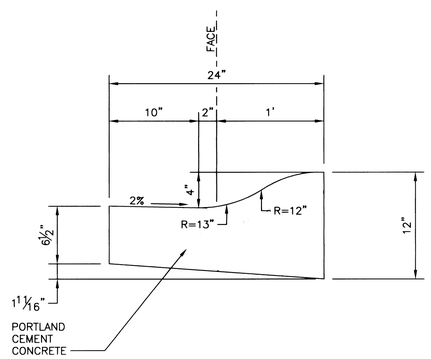


GENERAL NOTES

1. THE NAME OF THE MANUFACTURER AND THE DIRECTION OF FLOW SHALL BE EMBOSSSED ON THE TOP SURFACE OF EACH GRATE. LETTERING TO BE RECESSED ¼".
2. FRAME SHALL BE GRAY IRON CONFORMING TO A.S.T.M. A48–90, GRADE 30. THE GRATE SHALL BE DUCTIL IRON CONFORMING TO A.S.T.M. A536–84 GRADE 80–55–06.
3. DIMENSIONS SHALL HAVE ±1/16" TOLERANCE, EXCEPT AS NOTED.
4. EDGES SHALL HAVE ⅜" RADIUS, ⅜" CHAMFER OR COMPLETE DEBURRING.
5. GRATE SHALL BE MANUFACTURED FOR EITHER LEFT OR RIGHT FLOW.
6. GRATES PLACED IN A SUMP CONDITION SHALL BE BI–DIRECTIONAL FLOW.
7. WELDING IS NOT PERMITTED.

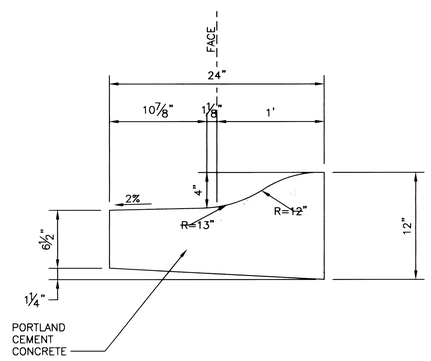
ROLLED CURB FRAME & GRATE DETAIL

NOT TO SCALE



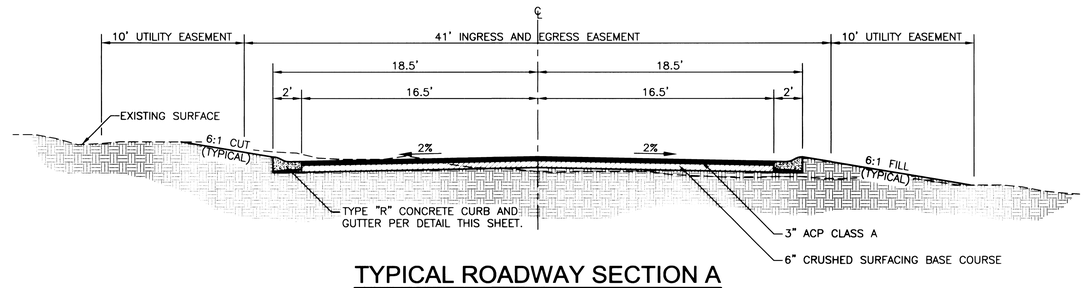
TYPE "R" CURB & GUTTER

SCALE: 1½"= 1'



SPILL CURB & GUTTER

SCALE: 1½"= 1'

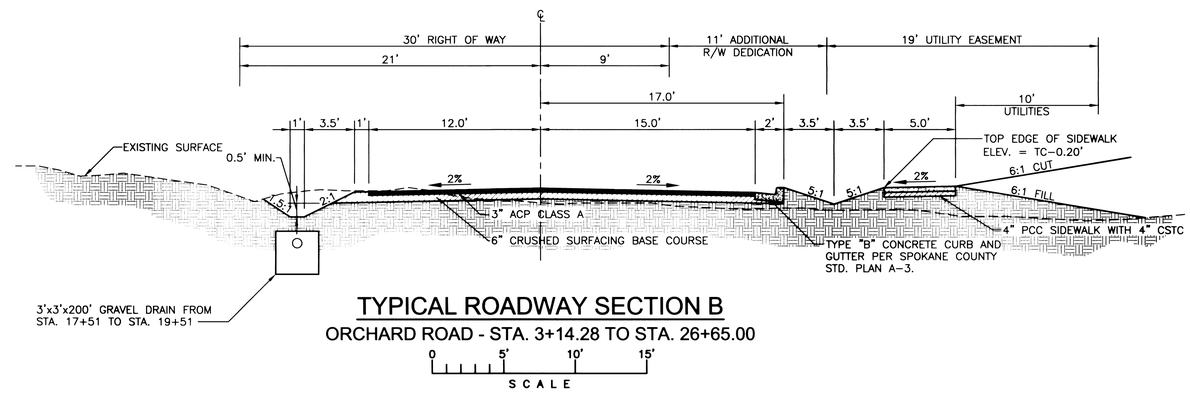


TYPICAL ROADWAY SECTION A

BRAEDEN LANE & NORTHVIEW LANE

0 5' 10' 15'

SCALE

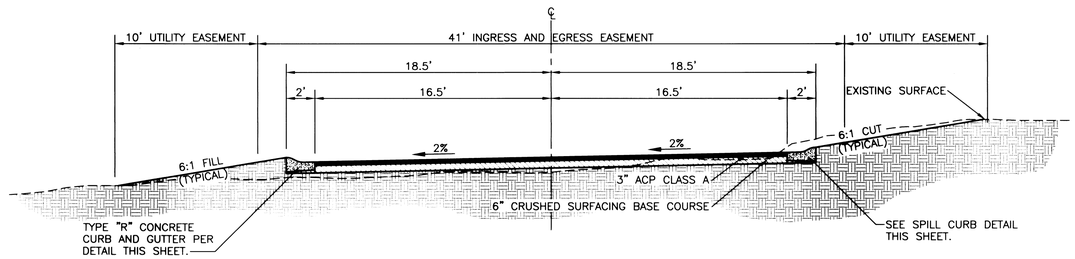


TYPICAL ROADWAY SECTION B

ORCHARD ROAD - STA. 3+14.28 TO STA. 26+65.00

0 5' 10' 15'

SCALE

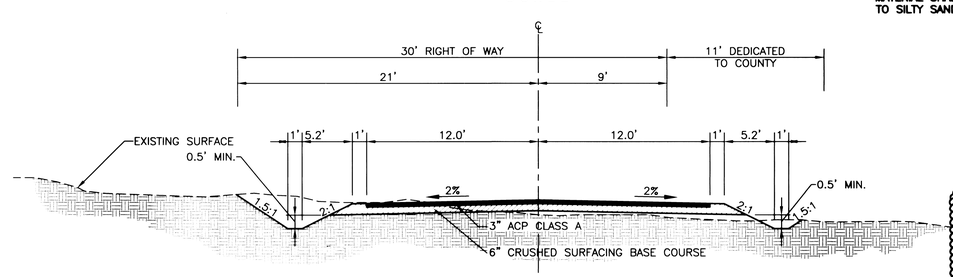


TYPICAL ROADWAY SECTION C

WESTOVER LANE

0 5' 10' 15'

SCALE



TYPICAL ROADWAY SECTION D

ORCHARD ROAD - STA. 1+19.37 TO STA. 3+14.28

0 5' 10' 15'

SCALE

NOTE:

FOR ALL ROAD SECTIONS, 1' TO 3' OF FINE SANDY SILT MATERIAL SHALL BE REMOVED IN ROADWAY AREAS DOWN TO SILTY SAND NATIVE MATERIAL.

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P-19024
DATE ACCEPTED: 10-07-05
ACCEPTANCE EXPIRES: 10-07-07
PROJECT LANE MILES PUBLIC: .91
PROJECT LANE MILES PRIVATE: 1.17
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 REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

DEVELOPER DATE

Registered Professional Engineer — Daniel A. Wyatt — 19461 — STATE OF WASHINGTON — EXPIRES: 10/23/05

THOMAS, DEAN & HOSKINS, INC.
ENGINEERING CONSULTANTS
MONTANA WASHINGTON IDAHO
GREAT FALLS–BOZEMAN–KALISPELL SPOKANE LEWISTON

REVISIONS
DESCR DATE BY
DESCR DATE BY
DESCR DATE BY

TD&H

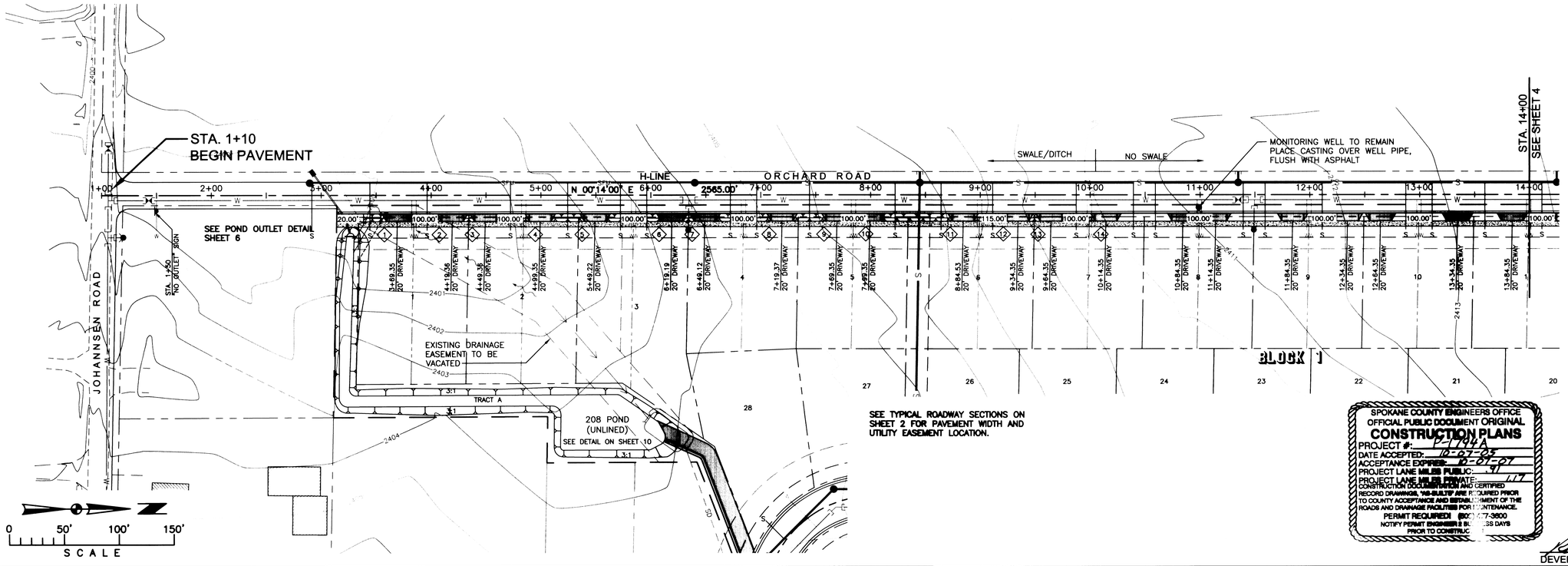
DRAWN BY:	EJD
DESIGNED BY:	DAW
QUALITY CHECK:	CWM
DATE:	10/5/05
JOB NO.	S04-108
FIELDBOOK	SDR

NORTHVIEW ESTATES - FIRST ADDITION
SPOKANE COUNTY, WASHINGTON

TYPICAL ROADWAY SECTIONS

CAD NO S04-108-SD02 .DWG

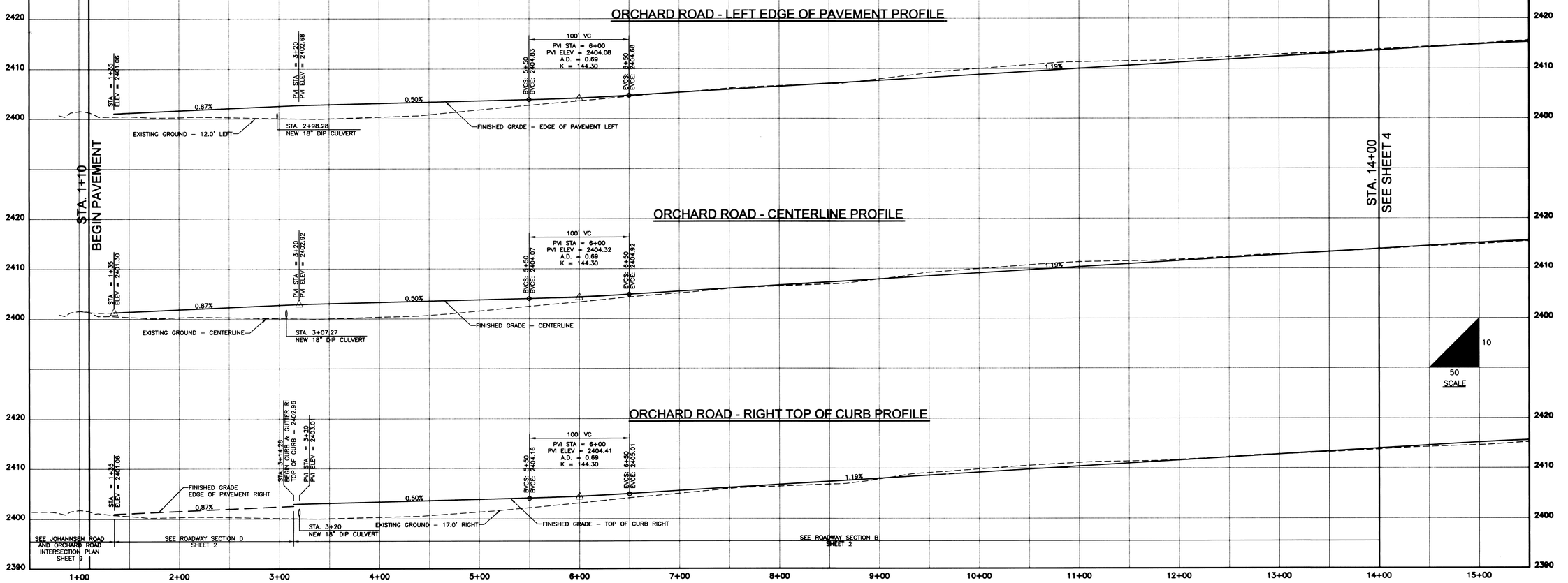
SHEET 2 OF 10



DRIVEWAY ELEVATIONS	
POINT NUMBER	TOP OF CONCRETE ELEVATION
1	2402.51
2	2402.76
3	2403.00
4	2403.16
5	2403.41
6	2403.86
7	2404.19
8	2405.02
9	2405.62
10	2405.98
11	2406.99
12	2407.58
13	2407.94
14	2408.53

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P-1194A
DATE ACCEPTED: 10-27-05
ACCEPTANCE EXPIRES: 10-01-07
PROJECT LANE MILES PUBLIC: 1.17
PROJECT LANE MILES PRIVATE: 1.17
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 REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 8 BUSINESS DAYS PRIOR TO CONSTRUCTION

DEVELOPER 10-6-05 DATE



REVISIONS
DESCR DATE BY
DESCR DATE BY
DESCR DATE BY

THOMAS, DEAN & HOSKINS, INC.
ENGINEERING CONSULTANTS
MONTANA WASHINGTON IDAHO
GREAT FALLS–BOZEMAN–KALISPELL SPOKANE LEWISTON
TD&H

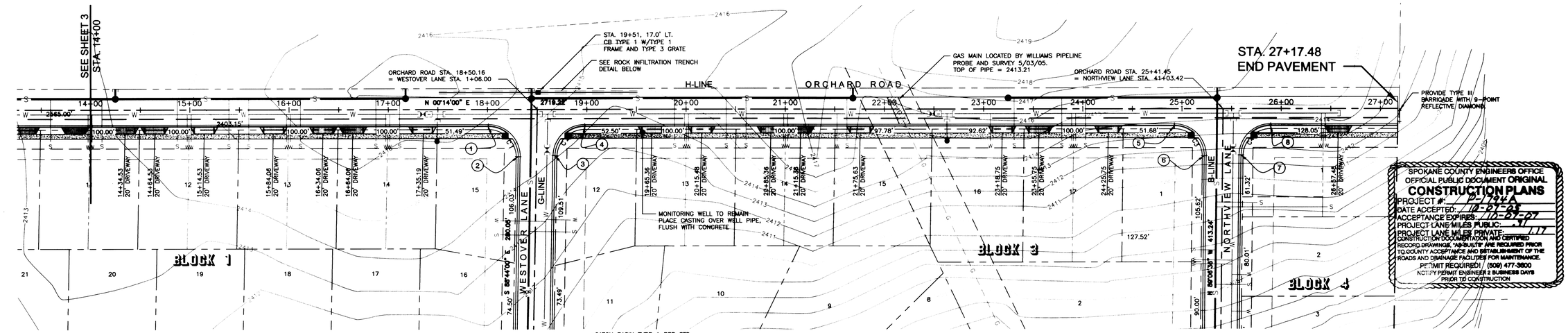
DRAWN BY: EJD
DESIGNED BY: DAW
QUALITY CHECK: CWM
DATE: 10/5/05
JOB NO. S04-108
FIELDBOOK SDR

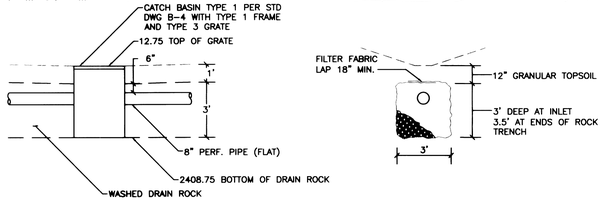
NORTHVIEW ESTATES - FIRST ADDITION
SPOKANE COUNTY, WASHINGTON

PLAN AND PROFILE
ORCHARD ROAD - STA. 1+00 TO STA. 14+00

CAD NO804-108-SD03.DWG
SHEET 3 OF 10

P-1194A Engineer's Drawing





ROCK INFILTRATION TRENCH DETAIL

NOT TO SCALE

BACK OF CURB PC/PT TABLE				
		ALIGN	STATION	OFFSET
1	PC	H	18+00.81	17.00' RT.
		G	1+23.89	49.04' RT.
2	PT	H	18+30.80	47.54' RT.
		G	1+53.88	18.50' RT.
3	PC	H	18+67.83	46.46' RT.
		G	1+52.13	18.50' LT.
4	PT	H	18+97.82	17.00' RT.
		G	1+22.14	47.96' LT.
5	PC	H	24+92.41	17.00' RT.
		B	40+85.86	48.84' LT.
6	PT	H	25+22.41	47.34' RT.
		B	40+55.86	18.50' LT.
7	PC	H	25+59.42	46.66' RT.
		B	40+56.97	18.50' RT.
8	PT	H	25+89.42	17.00' RT.
		B	40+86.97	48.16' RT.

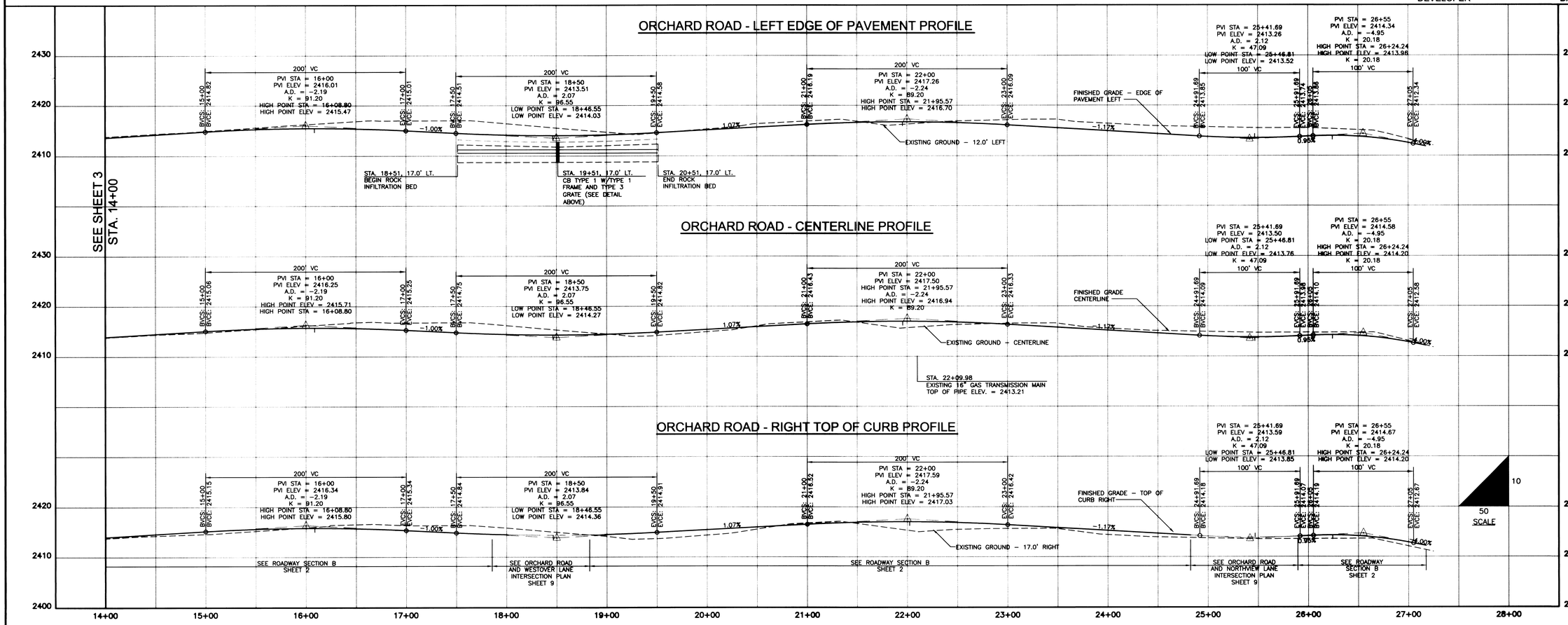
CURVE TABLE			
CURVE	RADIUS	LENGTH	TANGENT
C1	28.00	44.49	28.51
C2	28.00	43.48	27.50
C3	28.00	44.30	28.32
C4	28.00	44.30	28.32

SEE TYPICAL ROADWAY SECTIONS ON SHEET 2 FOR PAVEMENT WIDTH AND UTILITY EASEMENT LOCATION.

DEVELOPER — DATE 10/6/05

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P-174A
DATE ACCEPTED: 10-27-05
ACCEPTANCE EXPIRES: 10-27-07
PROJECT LANE MILES PUBLIC: .31
PROJECT LANE MILES PRIVATE: .111
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 REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

ORCHARD ROAD - LEFT EDGE OF PAVEMENT PROFILE



ORCHARD ROAD - CENTERLINE PROFILE

ORCHARD ROAD - RIGHT TOP OF CURB PROFILE

14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00

2430 2420 2410 2400

REVISIONS
DESCR DATE BY
DESCR DATE BY
DESCR DATE BY

THOMAS, DEAN & HOSKINS, INC.
ENGINEERING CONSULTANTS
GREAT FALLS–BOZEMAN–KALISPELL
SPOKANE LEWISTON
MONTANA WASHINGTON IDAHO

TD&H

EXPIRES: 10/31/05

DRAWN BY: EJD
DESIGNED BY: DAW
QUALITY CHECK: CWM
DATE: 10/5/05
JOB NO. S04-108
FIELDBOOK SDR

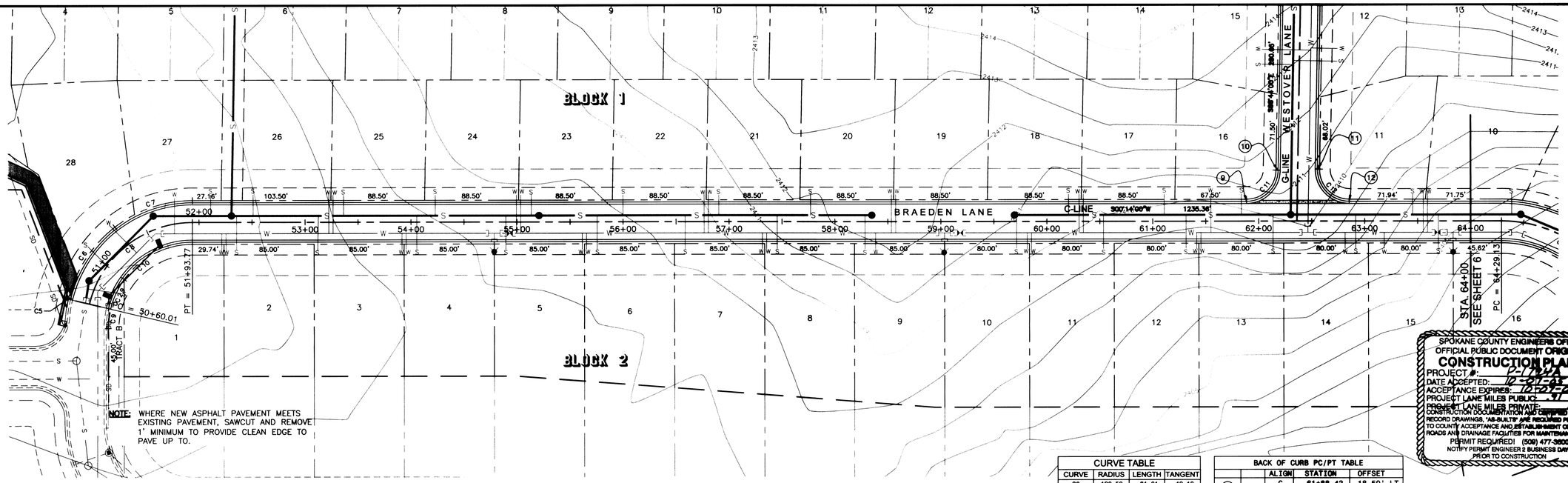
NORTHVIEW ESTATES - FIRST ADDITION
SPOKANE COUNTY, WASHINGTON

PLAN AND PROFILE
ORCHARD ROAD - STA. 14+00 TO STA. 26+65

CAD NO:S04-108-SD04.DWG

SHEET 4 OF 10

P-17940 Engineer



0 50' 100' 150'
SCALE

CURVE TABLE			
CURVE	RADIUS	LENGTH	TANGENT
C6	120.50	81.01	42.10
C7	120.50	78.78	40.86
C8	100.00	133.76	79.03
C9	79.50	18.54	9.31
C10	79.50	75.24	40.70
C11	28.00	43.48	27.50
C12	28.00	44.49	28.51
C29	79.50	31.10	15.75

BACK OF CURB PC/PT TABLE					
			ALIGN	STATION	OFFSET
(9)	PC	C	C	61+88.43	18.50' LT.
		G	G	3+62.41	47.96' RT.
(10)	PT	C	C	62+18.43	47.96' LT.
		G	G	3+32.41	18.50' RT.
(11)	PC	C	C	62+55.45	49.04' LT.
		G	G	3+30.66	18.50' LT.
(12)	PT	C	C	62+85.45	18.50' LT.
		G	G	3+60.66	49.04' LT.

SEE TYPICAL ROADWAY SECTIONS ON SHEET 2 FOR PAVEMENT WIDTH AND UTILITY EASEMENT LOCATION.

DEVELOPER DATE

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P-17444
DATE ACCEPTED: 12-21-05
ACCEPTANCE EXPIRES: 12-21-07
PROJECT LANE MILES PUBLIC: .91
PROJECT LANE MILES PRIVATE: .111
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 REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

BRAEDEN LANE - LEFT TOP OF CURB PROFILE

STA. 50+60.01 ELEV = 2405.72 BEGIN NEW CURB & GUTTER LEFT
PVI STA = 51+00 PVI ELEV = 2406.04
0.81%
0.80%
100' VC
PVI STA = 58+50
PVI ELEV = 2412.04
A.D. = 1.69
K = 59.22
HIGH POINT STA = 58+47.38
HIGH POINT ELEV = 2411.83
BVCS: 58+00 BVCE: 2411.64
EVCS: 59+00 EVCE: 2411.60
-0.89%
200' VC
PVI STA = 62+50
PVI ELEV = 2408.49
A.D. = -1.54
K = 29.86
BVCS: 61+50 BVCE: 2409.38
EVCS: 63+50 EVCE: 2406.06
EXISTING GROUND – 18.5' RIGHT
FINISHED GRADE TOP OF CURB RIGHT
SEE ROADWAY SECTION A SHEET 2
SEE BRAEDEN LANE AND WESTOVER LANE INTERSECTION PLAN SHEET 8
SEE ROADWAY SECTION A SHEET 2

BRAEDEN LANE - CENTERLINE PROFILE

STA. 50+60.01 ELEV = 2405.73 BEGIN NEW ASPHALT PAVEMENT
PVI STA = 51+00 PVI ELEV = 2406.05
0.81%
0.80%
100' VC
PVI STA = 58+50
PVI ELEV = 2412.05
A.D. = -1.69
K = 59.22
HIGH POINT STA = 58+47.38
HIGH POINT ELEV = 2411.84
BVCS: 58+00 BVCE: 2411.65
EVCS: 59+00 EVCE: 2411.61
-0.89%
200' VC
PVI STA = 62+50
PVI ELEV = 2408.50
A.D. = -1.54
K = 29.86
BVCS: 61+50 BVCE: 2409.39
EVCS: 63+50 EVCE: 2406.07
EXISTING GROUND – CENTERLINE
FINISHED GRADE – CENTERLINE

BRAEDEN LANE - RIGHT TOP OF CURB PROFILE

STA. 50+60.01 ELEV = 2405.72 BEGIN NEW CURB & GUTTER RIGHT
PVI STA = 51+00 PVI ELEV = 2406.04
0.81%
0.80%
100' VC
PVI STA = 58+50
PVI ELEV = 2412.04
A.D. = -1.69
K = 59.22
HIGH POINT STA = 58+47.38
HIGH POINT ELEV = 2411.83
BVCS: 58+00 BVCE: 2411.64
EVCS: 59+00 EVCE: 2411.60
-0.89%
200' VC
PVI STA = 62+50
PVI ELEV = 2408.49
A.D. = -1.54
K = 29.86
BVCS: 61+50 BVCE: 2409.38
EVCS: 63+50 EVCE: 2406.06
EXISTING GROUND – 18.5' RIGHT
FINISHED GRADE TOP OF CURB RIGHT
SD8-1 L = 8.01 G = 0.0050'/' 12" ADS
SD8-2 L = 68.21 G = 0.0050'/' 12" ADS
CB-13, INLET TYPE 2, WSDOT STD DWG B-4c&d (ROTATED 90°) STA. 51+56.60, 15.14' RT. RIM = 2406.16 I.E. (OUT) = 2403.21 SD8-2
CB-14, INLET TYPE 2, WSDOT STD DWG B-4c&d (ROTATED 90°) STA. 50+73.87, 15.14' RT. RIM = 2405.49 I.E. (IN) = 2402.86 SD8-2 I.E. (OUT) = 2402.86 SD8-1
CONNECT TO EXITING STORM DRAIN STA. 50+66.07, 17.40' RT. I.E. (IN) = 2402.83 SD8-1

STA. 64+00
SEE SHEET 6

10
50
SCALE

2420 2410 2400

51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00 62+00 63+00 64+00

REVISIONS
DESCR DATE
DESCR DATE
DESCR DATE
BY
BY
BY

THOMAS, DEAN & HOSKINS, INC.
ENGINEERING CONSULTANTS
MONTANA WASHINGTON IDAHO
GREAT FALLS–BOZEMAN–KALISPELL
SPOKANE LEWISTON

TD&H

DRAWN BY:	EJD
DESIGNED BY:	DAW
QUALITY CHECK:	CWM
DATE:	10/5/05
JOB NO.	S04-108
FIELDBOOK	SDR

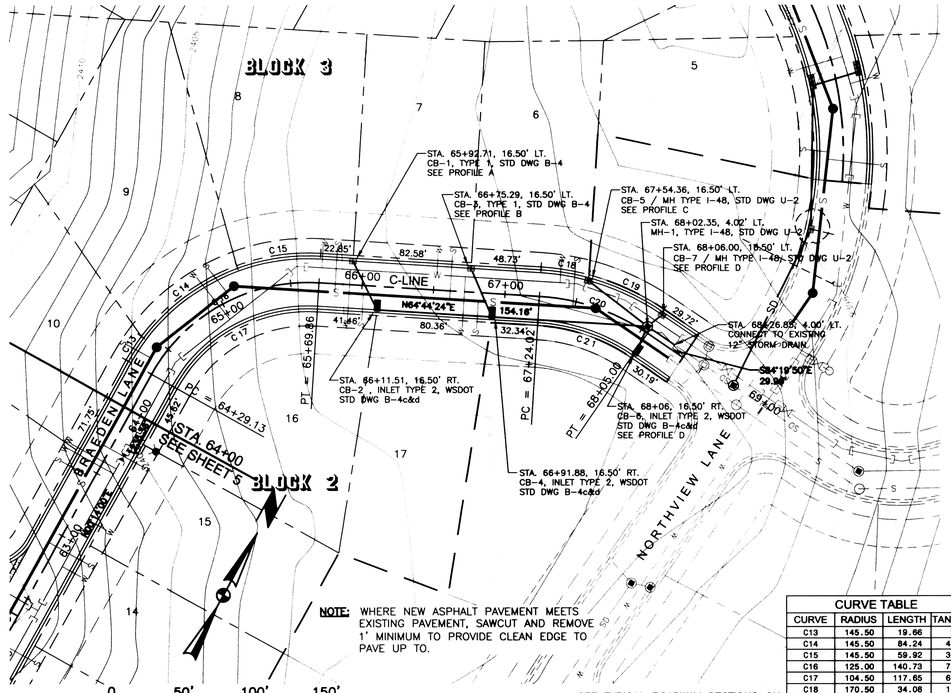
NORTHVIEW ESTATES - FIRST ADDITION
SPOKANE COUNTY, WASHINGTON

PLAN AND PROFILE
BRAEDEN LANE - STA. 50+60.01 TO STA. 64+00

CAD NO[S04-108-SD05.DWG]

SHEET 5 OF 10

P-17444 Eng Appd. Drawings

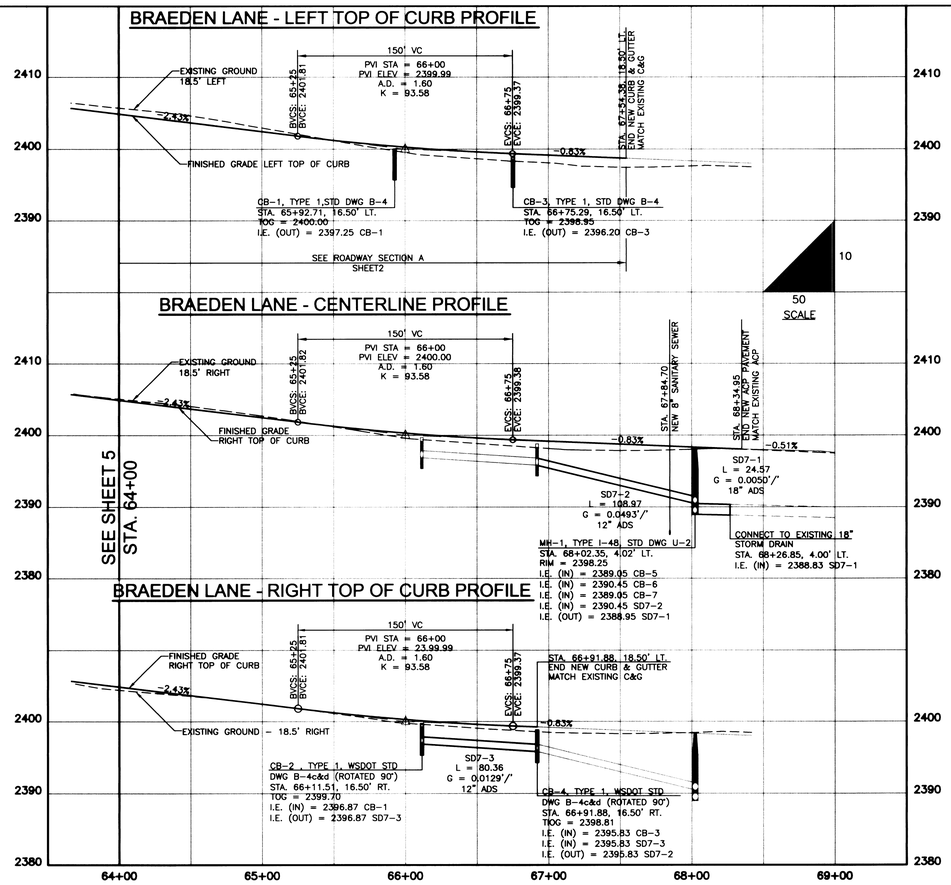


NOTE: WHERE NEW ASPHALT PAVEMENT MEETS EXISTING PAVEMENT, SAWCUT AND REMOVE 1' MINIMUM TO PROVIDE CLEAN EDGE TO PAVE UP TO.

SEE TYPICAL ROADWAY SECTIONS ON SHEET 2 FOR PAVEMENT WIDTH AND UTILITY EASEMENT LOCATION.

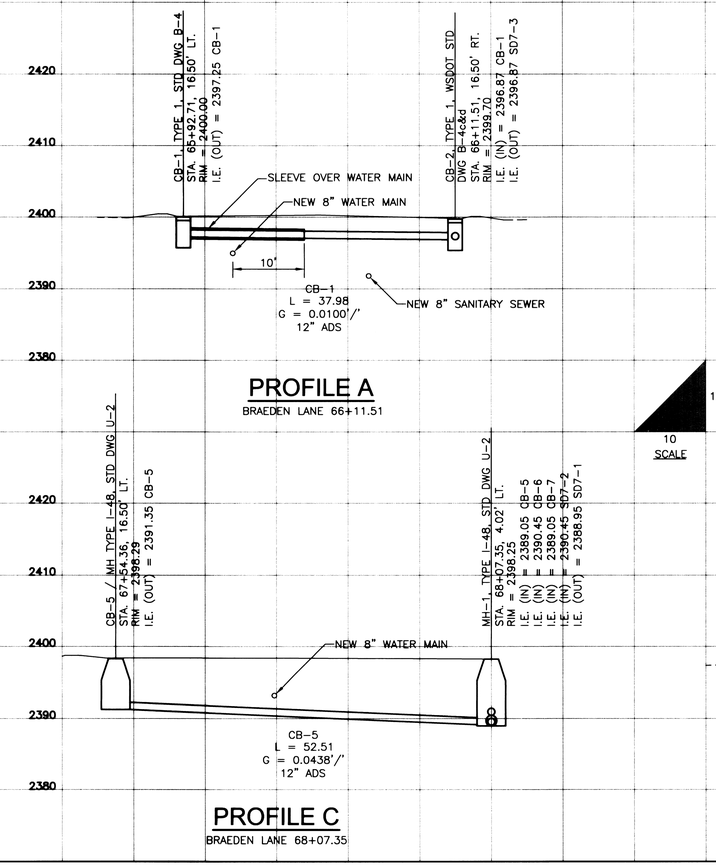
CURVE TABLE			
CURVE	RADIUS	LENGTH	TANGENT
C13	145.50	19.66	9.84
C14	145.50	84.24	43.34
C15	145.50	59.92	30.39
C16	125.00	140.73	78.88
C17	104.50	117.65	65.94
C18	170.50	34.08	17.09
C19	170.50	57.96	29.26
C20	150.00	80.97	41.50
C21	129.50	69.91	35.83

BRAEDEN LANE - LEFT TOP OF CURB PROFILE



BRAEDEN LANE - CENTERLINE PROFILE

BRAEDEN LANE - RIGHT TOP OF CURB PROFILE



PROFILE A

BRAEDEN LANE 66+11.51

10

10

SCALE

PROFILE B

BRAEDEN LANE 66+91.88

PROFILE C

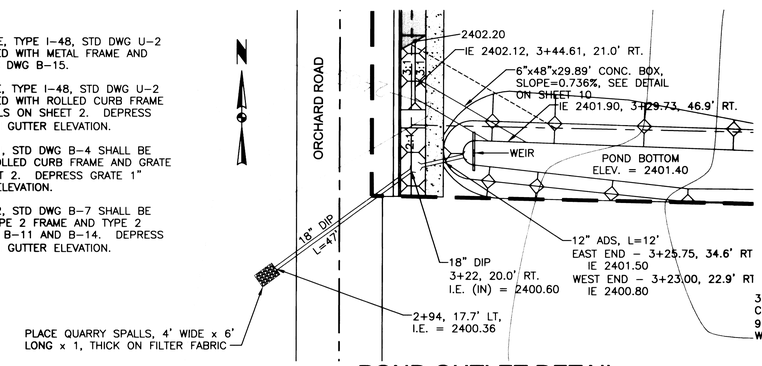
BRAEDEN LANE 68+07.35

PROFILE D

BRAEDEN LANE 68+07.35

NOTE:

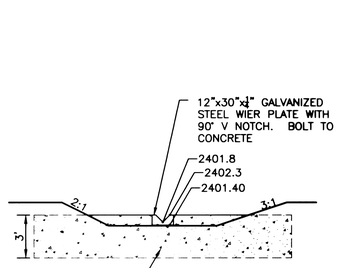
- STORM DRAIN MANHOLE, TYPE I-48, STD DWG U-2 SHALL BE CONSTRUCTED WITH METAL FRAME AND SOLID COVER PER STD DWG B-15.
- CATCH BASIN MANHOLE, TYPE I-48, STD DWG U-2 SHALL BE CONSTRUCTED WITH ROLLED CURB FRAME AND GRATE PER DETAILS ON SHEET 2. DEPRESS GRATE 1" LOWER THAN GUTTER ELEVATION.
- CATCH BASINS, TYPE 1, STD DWG B-4 SHALL BE CONSTRUCTED WITH ROLLED CURB FRAME AND GRATE PER DETAILS ON SHEET 2. DEPRESS GRATE 1" LOWER THAN GUTTER ELEVATION.
- CATCH BASINS, TYPE 2, STD DWG B-7 SHALL BE CONSTRUCTED WITH TYPE 2 FRAME AND TYPE 2 GRATE PER STD DWGS B-11 AND B-14. DEPRESS GRATE 2" LOWER THAN GUTTER ELEVATION.



POND OUTLET DETAIL

0 20' 40' 60'

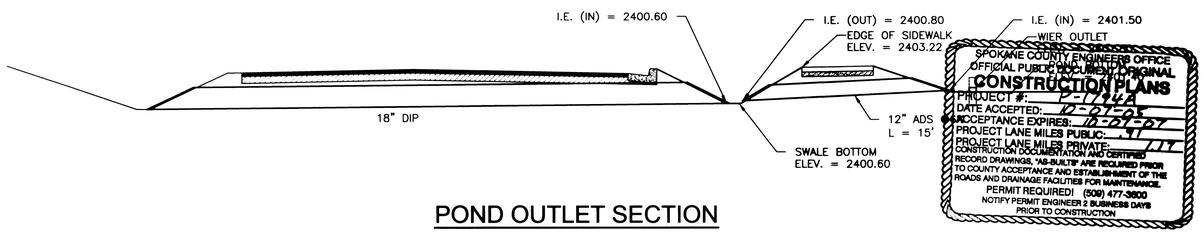
SCALE



WIER DETAIL

0 5' 10' 15'

SCALE



POND OUTLET SECTION

0 5' 10' 15'

SCALE

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT - ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P-17442
DATE ACCEPTED: 10-27-05
ACCEPTANCE EXPIRES: 10-27-07
PROJECT LANE MILES PUBLIC: .31
PROJECT LANE MILES PRIVATE: .11
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 REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

DEVELOPER

DATE

EXPIRES: 10/23/05

REVISIONS
DESCR DATE
DESCR DATE
DESCR DATE
BY
BY
BY

THOMAS, DEAN & HOSKINS, INC.
ENGINEERING CONSULTANTS
MONTANA
WASHINGTON
IDAHO
GREAT FALLS–BOZEMAN–KALISPELL
SPOKANE
LEWISTON

TD&H

DRAWN BY: EJD
DESIGNED BY: DAW
QUALITY CHECK: CWM
DATE: 10/5/05
JOB NO. S04-108
FIELDBOOK SDR

NORTHVIEW ESTATES - FIRST ADDITION
SPOKANE COUNTY, WASHINGTON

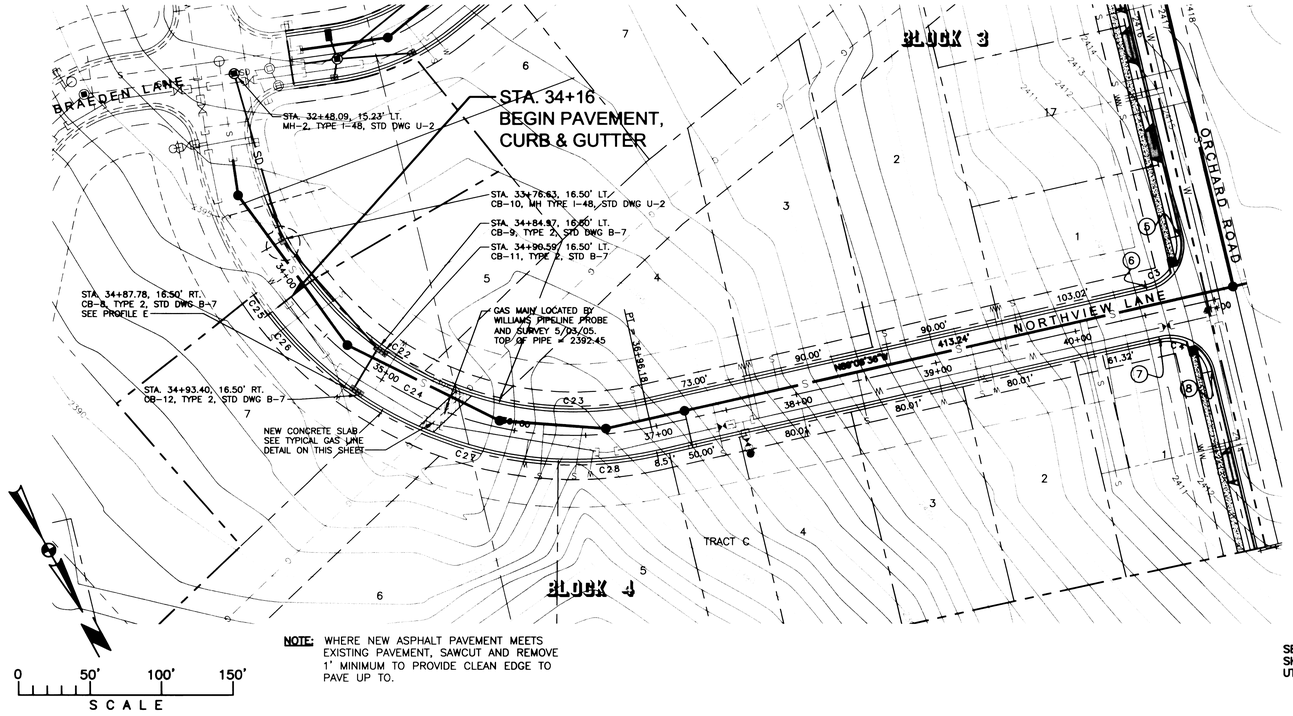
PLAN AND PROFILE

BRAEDEN LANE - STA. 64+00 TO STA. 68+34.95

CAD NO:S04-108-SD06.DWG

SHEET 6 OF 10

Approved Changes
8/16/06

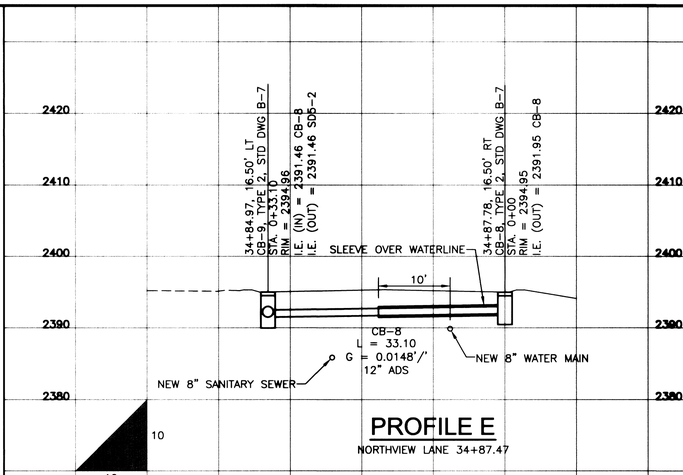


NOTE: WHERE NEW ASPHALT PAVEMENT MEETS EXISTING PAVEMENT, SAWCUT AND REMOVE 1' MINIMUM TO PROVIDE CLEAN EDGE TO PAVE UP TO.

CURVE TABLE			
CURVE	RADIUS	LENGTH	TANGENT
C3	28.00	44.30	28.32
C4	28.00	43.30	28.32
C22	229.50	156.89	81.65
C23	229.50	101.70	51.70
C24	250.00	282.18	158.26
C25	270.50	17.08	8.54
C26	270.50	105.04	53.19
C27	270.50	130.32	66.45
C28	270.50	70.02	35.20

BACK OF CURB PC/PT TABLE				
		ALIGN	STATION	OFFSET
(5)	PC	H	24+92.41	17.00' RT.
		B	40+85.86	48.84' LT.
(6)	PT	H	25+22.41	47.34' RT.
		B	40+55.86	18.50' LT.
(7)	PC	H	25+59.42	46.66' RT.
		B	40+56.97	18.50' RT.
(8)	PT	H	25+89.42	17.00' RT.
		B	40+86.97	48.16' RT.

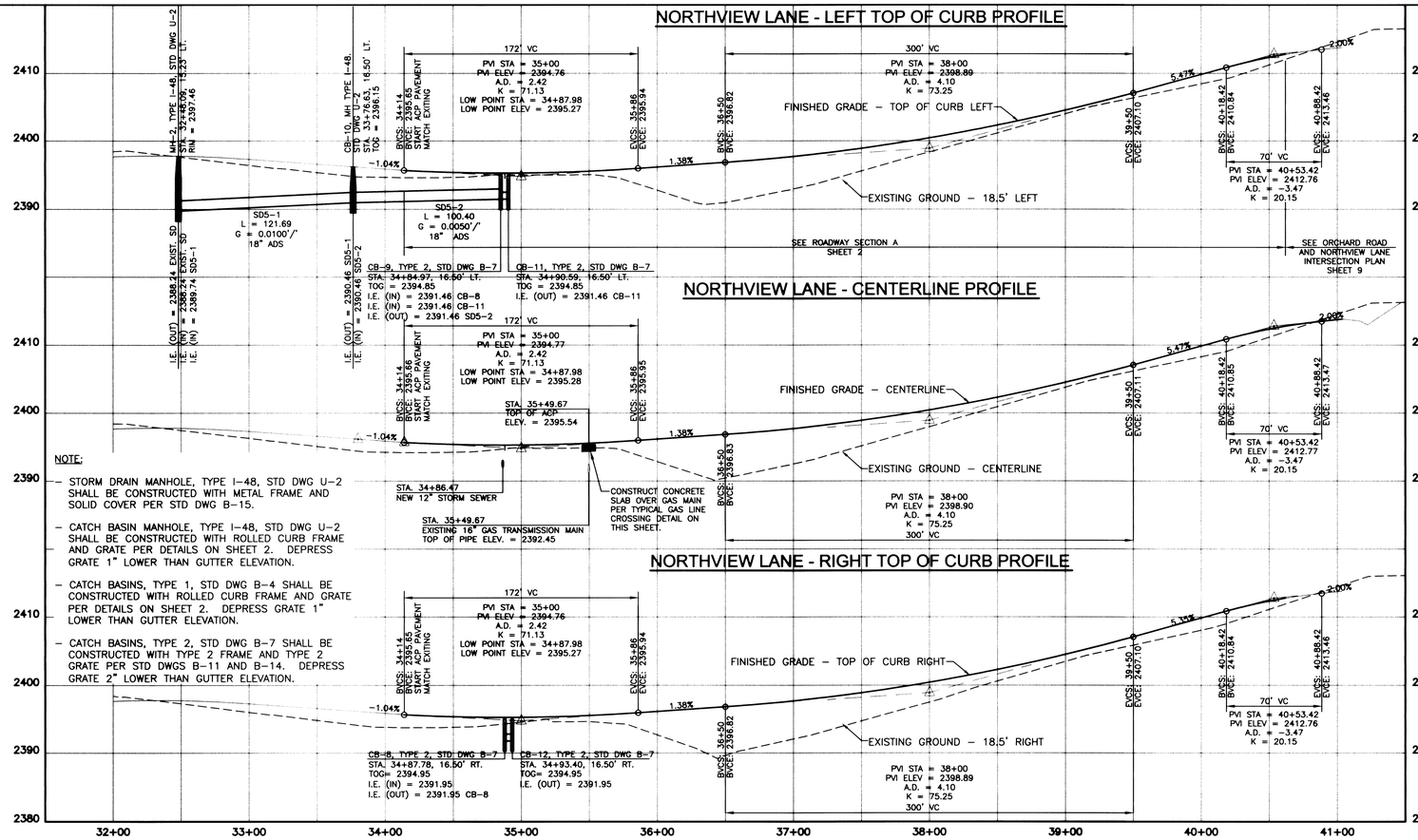
SEE TYPICAL ROADWAY SECTIONS ON SHEET 2 FOR PAVEMENT WIDTH AND UTILITY EASEMENT LOCATION.



PROFILE E

NORTHVIEW LANE 34+87.47

NORTHVIEW LANE - LEFT TOP OF CURB PROFILE



NORTHVIEW LANE - CENTERLINE PROFILE

NOTE:

- STORM DRAIN MANHOLE, TYPE I-48, STD DWG U-2 SHALL BE CONSTRUCTED WITH METAL FRAME AND SOLID COVER PER STD DWG B-15.
- CATCH BASIN MANHOLE, TYPE I-48, STD DWG U-2 SHALL BE CONSTRUCTED WITH ROLLED CURB FRAME AND GRATE PER DETAILS ON SHEET 2. DEPRESS GRATE 1" LOWER THAN GUTTER ELEVATION.
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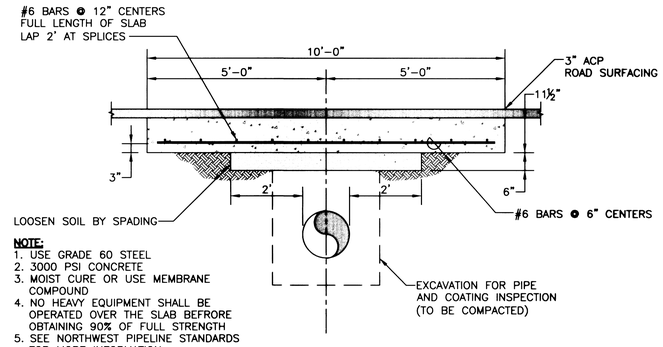
NORTHVIEW LANE - RIGHT TOP OF CURB PROFILE

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P-17448
DATE ACCEPTED: 10-07-05
ACCEPTANCE EXPIRES: 10-07-07
PROJECT LANE MILES PUBLIC: .41
PROJECT LANE MILES PRIVATE: .11
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 REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION



NOTE:
1. USE GRADE 60 STEEL
2. 3000 PSI CONCRETE
3. MOIST CURE OR USE MEMBRANE COMPOUND
4. NO HEAVY EQUIPMENT SHALL BE OPERATED OVER THE SLAB BEFRORE OBTAINING 90% OF FULL STRENGTH
5. SEE NORTHWEST PIPELINE STANDARDS FOR MORE INFORMATION.

TYPICAL GAS LINE CROSSING

FOR STA. 35+49.67 NORTHVIEW LANE
AND STA. 22+09.98 ORCHARD ROAD

0 1' 2'
SCALE

DEVELOPER — DATE 10/6/05

REVISIONS
BY DATE DESCR
BY DATE DESCR
BY DATE DESCR

THOMAS, DEAN & HOSKINS, INC.
ENGINEERING CONSULTANTS
GREAT FALLS–BOZEMAN–KALISPELL
SPOKANE
LEWISTON
MONTANA
WASHINGTON
IDAHO

TD&H

DRAWN BY: EJD
DESIGNED BY: DAW
QUALITY CHECK: CWM
DATE: 9/30/05
JOB NO. S04-108
FIELDBOOK SDR

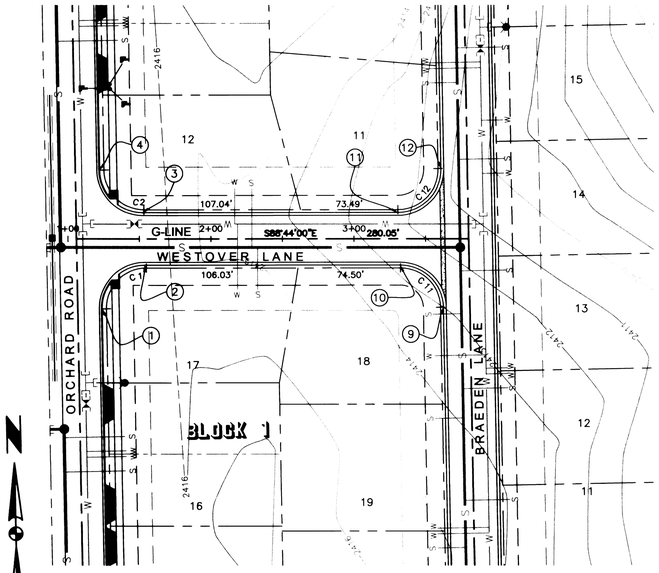
NORTHVIEW ESTATES - FIRST ADDITION
SPOKANE COUNTY, WASHINGTON

PLAN AND PROFILE
NORTHVIEW LANE

CAD NO\S04-108-SD07.DWG

SHEET 7 OF 10

P-17448 Eng Appd + Dwngs

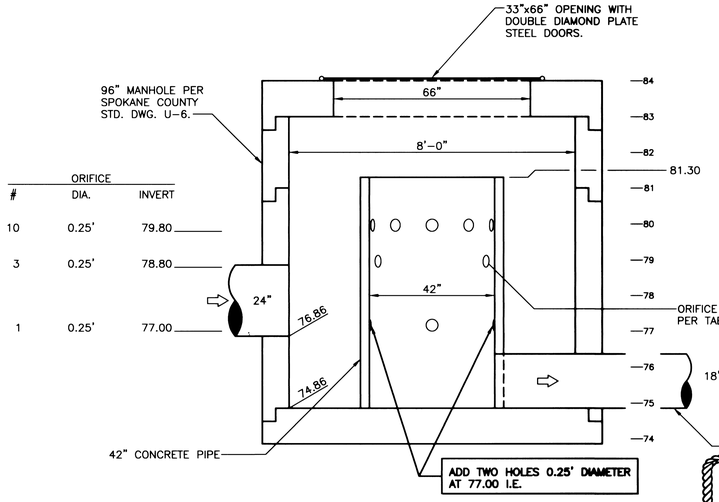


0 50' 100' 150'
SCALE

SEE TYPICAL ROADWAY SECTIONS ON SHEET 2 FOR PAVEMENT WIDTH AND UTILITY EASEMENT LOCATION.

BACK OF CURB PC/PT TABLE				
		ALIGN	STATION	OFFSET
(1)	PC	H	18+00.81	17.00' RT.
		G	1+23.89	49.04' RT.
(2)	PT	H	18+30.80	47.54' RT.
		G	1+53.88	18.50' RT.
(3)	PC	H	18+67.83	46.46' RT.
		G	1+52.13	18.50' LT.
(4)	PT	H	18+97.82	17.00' RT.
		G	1+22.14	47.96' LT.
(9)	PC	C	61+88.43	18.50' LT.
		G	3+62.41	47.96' RT.
(10)	PT	C	62+18.43	47.96' LT.
		G	3+32.41	18.50' RT.
(11)	PC	C	62+55.45	49.04' LT.
		G	3+30.66	18.50' LT.
(12)	PT	C	62+85.45	18.50' LT.
		G	3+60.66	49.04' LT.

CURVE TABLE			
CURVE	RADIUS	LENGTH	TANGENT
C1	28.00	44.49	28.51
C2	28.00	43.48	27.50
C11	28.00	43.48	27.50
C12	28.00	44.49	28.51



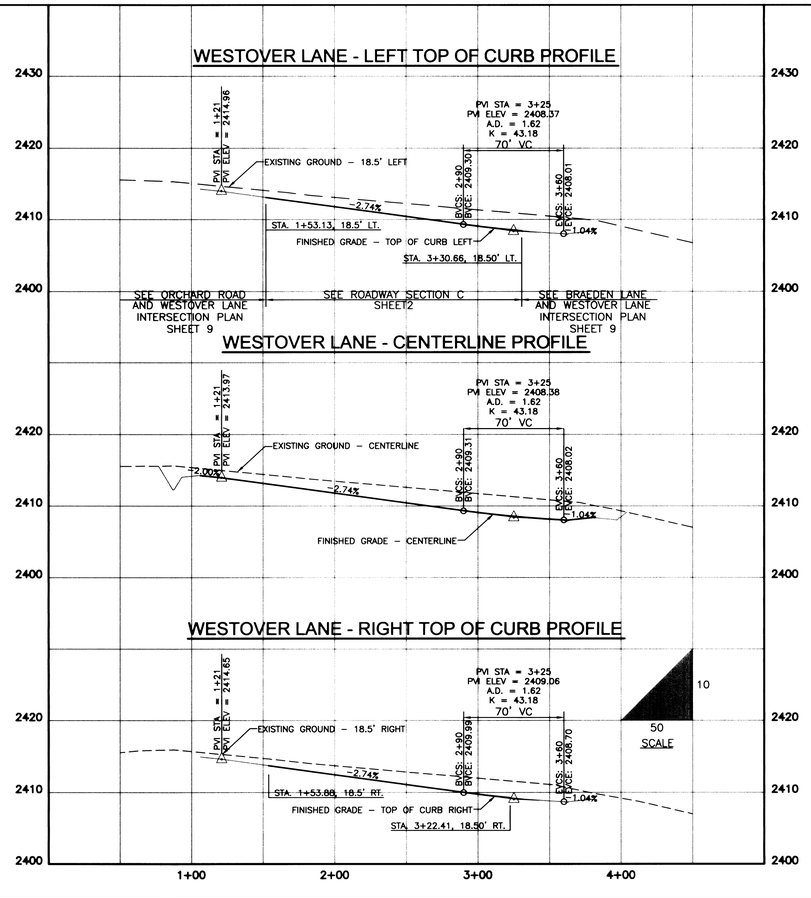
ORIFICE		
#	DIA.	INVERT
10	0.25'	79.80
3	0.25'	78.80
1	0.25'	77.00

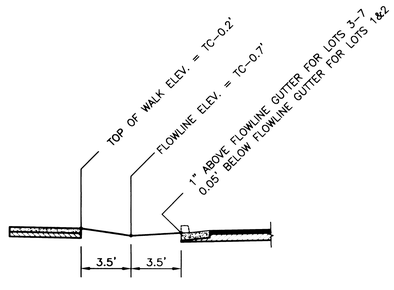
MODIFICATION TO EXISTING DETENTION POND OUTLET STRUCTURE

0 2' 4' 6'
SCALE

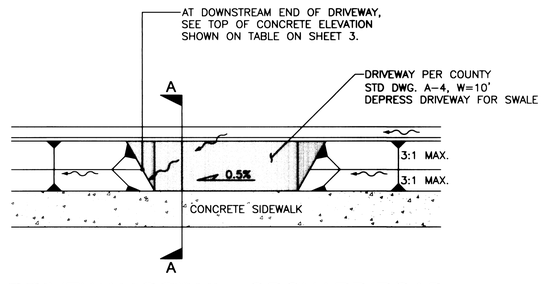
SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P17948
DATE ACCEPTED: 10-27-05
ACCEPTANCE EXPIRES: 10-27-07
PROJECT LANE MILES PUBLIC: .91
PROJECT LANE MILES PRIVATE: .17
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILTS" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.
PERMIT REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

DEVELOPER _____ DATE 10/6/05



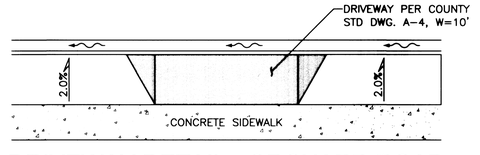


SECTION A-A



DRIVEWAY DETAIL - ORCHARD ROAD
SOUTH OF STATION 10+05

0 10' 20' 30'
SCALE



DRIVEWAY DETAIL - ORCHARD ROAD
NORTH OF STATION 10+05

0 10' 20' 30'
SCALE

THOMAS, DEAN & HOSKINS, INC.
ENGINEERING CONSULTANTS
MONTANA WASHINGTON IDAHO
GREAT FALLS–BOZEMAN–KALISPELL SPOKANE LEWISTON

REVISIONS
DESCR DATE BY
DESCR DATE BY
DESCR DATE BY

TD&H

EXPIRES: 10/23/05

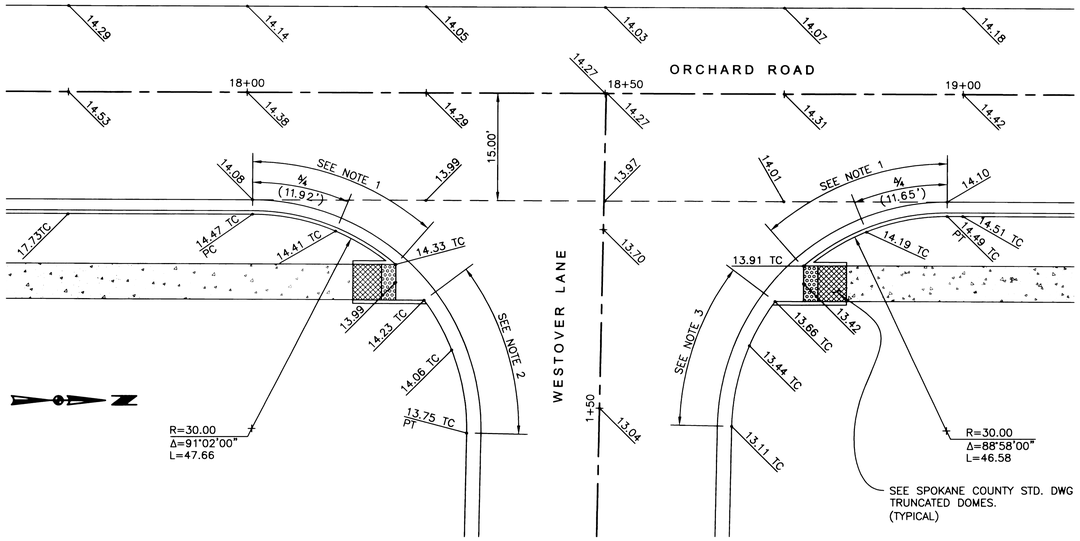
P17948 England/Davis

DRAWN BY:	EJD
DESIGNED BY:	DAW
QUALITY CHECK:	CWM
DATE:	10/5/05
JOB NO.	S04-108
FIELDBOOK	SDR

NORTHVIEW ESTATES - FIRST ADDITION
SPOKANE COUNTY, WASHINGTON

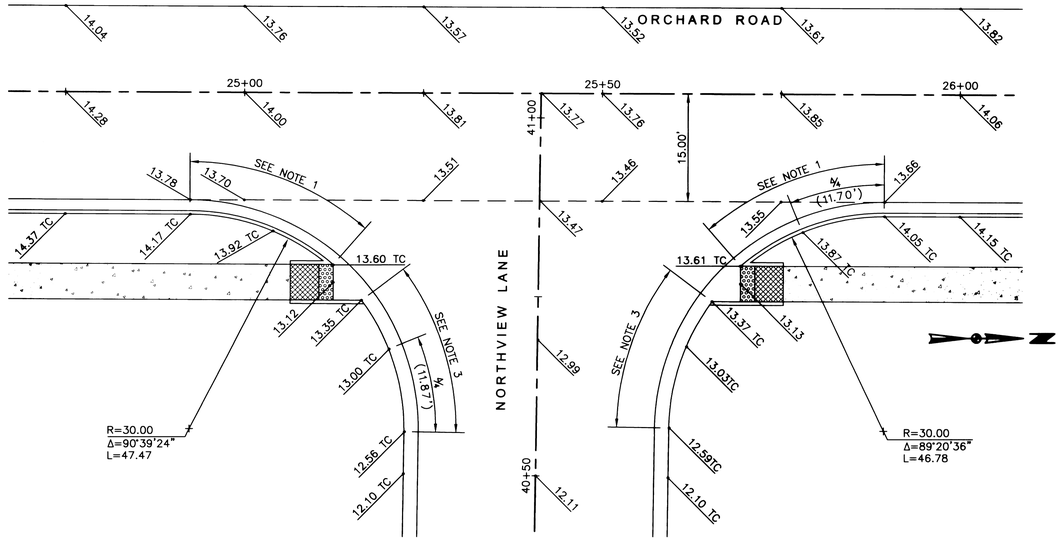
PLAN AND PROFILE
WESTOVER LANE

CAD NOS04-108-SD08.DWG



ORCHARD ROAD & WESTOVER LANE

0 10' 20' 30'
SCALE

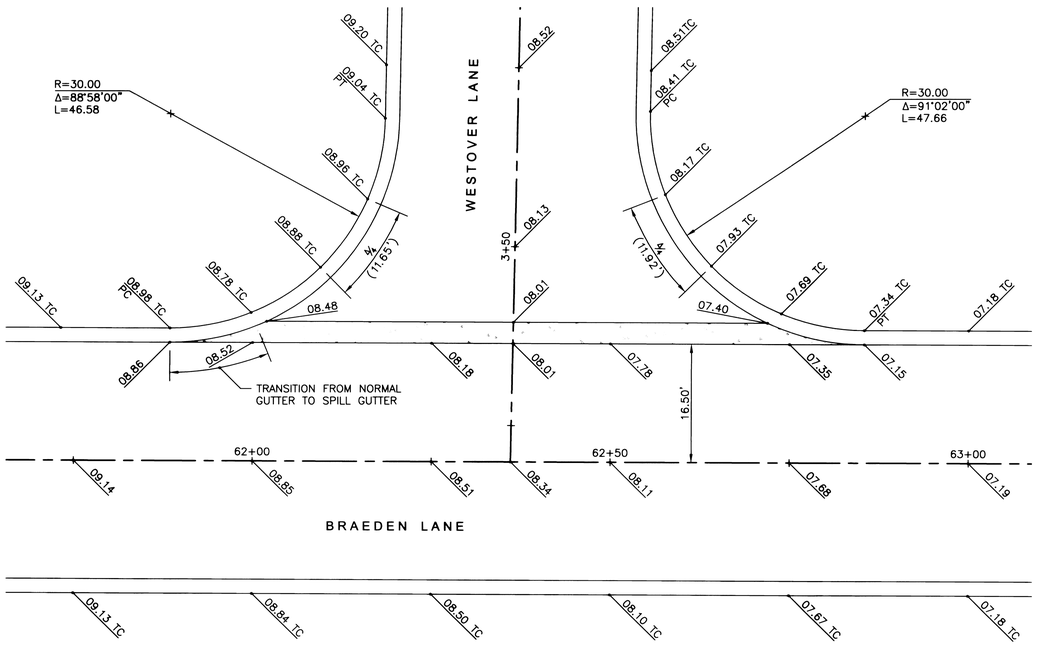


ORCHARD ROAD & NORTHVIEW LANE

0 10' 20' 30'
SCALE

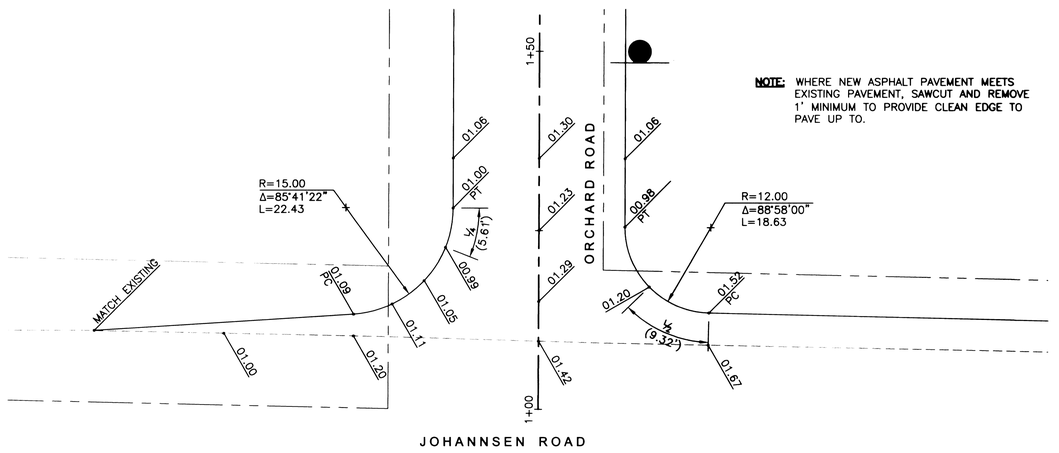
NOTES:

1. "TYPE B" CURB AND GUTTER
2. "TYPE R" CURB AND GUTTER (SPILL)
3. "TYPE R" CURB & GUTTER (NORMAL)



BRAEDEN LANE & WESTOVER LANE

0 10' 20' 30'
SCALE



NOTE: WHERE NEW ASPHALT PAVEMENT MEETS EXISTING PAVEMENT, SAWCUT AND REMOVE 1' MINIMUM TO PROVIDE CLEAN EDGE TO PAVE UP TO.

JOHANNSEN ROAD & ORCHARD ROAD

0 10' 20' 30'
SCALE

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: 12-174A
DATE ACCEPTED: 12-07-05
ACCEPTANCE EXPIRES: 12-09-07
PROJECT LANE MILES PUBLIC: .41
PROJECT LANE MILES PRIVATE: 1.17
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 REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

DEVELOPER _____ DATE 10/6/05

STATE OF WASHINGTON · DARRELL L. BOWMAN · 21183 · REGISTERED PROFESSIONAL ENGINEER · EXPIRES: 10/23/06

Engineering

REVISIONS
DESCR DATE BY
DESCR DATE BY
DESCR DATE BY

THOMAS, DEAN & HOSKINS, INC.
ENGINEERING CONSULTANTS
GREAT FALLS–BOZEMAN–KALISPELL
SPOKANE LEWISTON
MONTANA WASHINGTON IDAHO

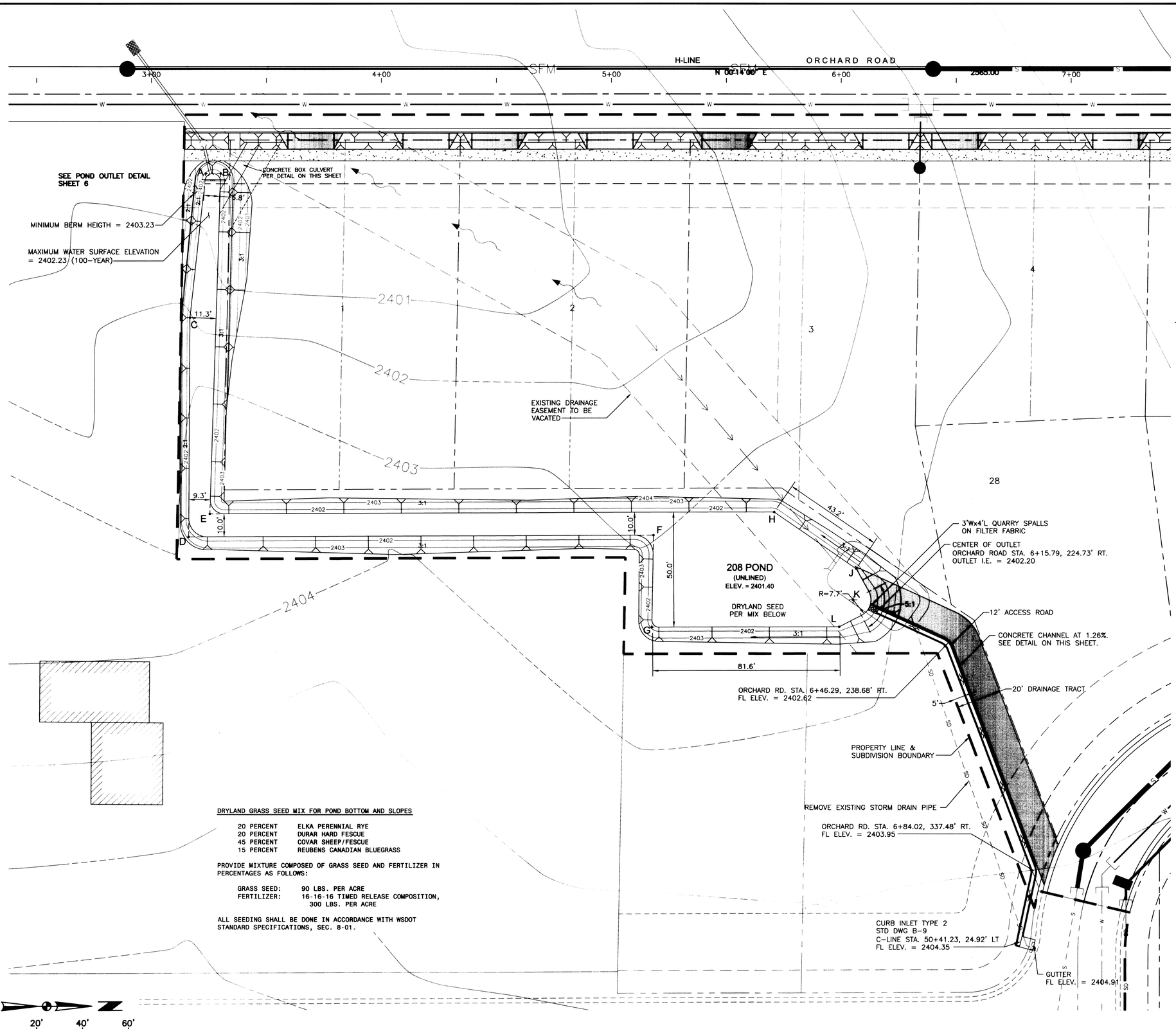
TD&H

DRAWN BY:	EJD
DESIGNED BY:	DAW
QUALITY CHECK:	DAW
DATE:	10/5/05
JOB NO.	S04-108
FIELDBOOK	SDR

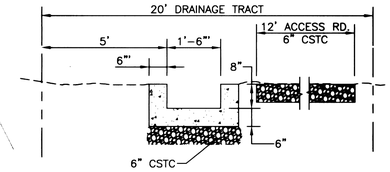
NORTHVIEW ESTATES - FIRST ADDITION
SPOKANE COUNTY, WASHINGTON

INTERSECTION PLANS

CAD NOS04-108-SD09 .DWG
SHEET 9 OF 10

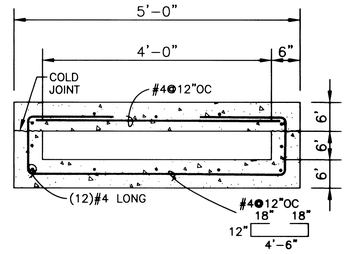


POND BOTTOM HORIZONTAL CONTROL				
POINT	STA. (ORCHARD)	OFFSET (CL)	NORTHING	EASTING
A	3+23.60	34.49' RT.	N5272.11	E2852.15
B	3+30.13	34.49' RT.	N5278.63	E2852.17
C	3+16.75	97.35' RT.	N5265.00	E2914.98
D	3+16.21	192.75' RT.	N5264.08	E3010.38
E	3+25.40	182.71' RT.	N5273.30	E3000.38
F	5+18.26	191.93' RT.	N5466.13	E3010.38
G	5+17.54	231.93' RT.	N5465.24	E3050.38
H	5+70.81	181.71' RT.	N5518.71	E3000.48
J	6+06.44	206.19' RT.	N5554.25	E3024.99
K	6+05.15	219.87' RT.	N5552.90	E3038.67
L	5+99.10	231.60' RT.	N5546.81	E3050.38



CONCRETE CHANNEL DETAIL

NOT TO SCALE



CONCRETE BOX CULVERT DETAIL

NOT TO SCALE

DRYLAND GRASS SEED MIX FOR POND BOTTOM AND SLOPES

20 PERCENT	ELKA PERENNIAL RYE
20 PERCENT	DURAR HARD FESCUE
45 PERCENT	COVAR SHEEP/FESCUE
15 PERCENT	REUBENS CANADIAN BLUEGRASS

PROVIDE MIXTURE COMPOSED OF GRASS SEED AND FERTILIZER IN PERCENTAGES AS FOLLOWS:

GRASS SEED: 90 LBS. PER ACRE
FERTILIZER: 16-16-16 TIMED RELEASE COMPOSITION, 300 LBS. PER ACRE

ALL SEEDING SHALL BE DONE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS, SEC. 8-01.

0 20' 40' 60'
SCALE

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P-17948
DATE ACCEPTED: 12-27-05
ACCEPTANCE EXPIRES: 12-27-07
PROJECT LANE MILES PUBLIC: 4.7
PROJECT LANE MILES PRIVATE: 1.1
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 REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

DEVELOPER DATE

EXPIRES: 10/23/06

THOMAS, DEAN & HOSKINS, INC.
ENGINEERING CONSULTANTS
GREAT FALLS-BOZEMAN-KALISPELL
SPOKANE
LEWISTON
MONTANA
WASHINGTON
IDAHO

REVISIONS
DESCR DATE BY
DESCR DATE BY
DESCR DATE BY

TD&H

P-17948 Engineering

DRAWN BY:	EJD
DESIGNED BY:	DAW
QUALITY CHECK:	CWM
DATE:	10/5/05
JOB NO.	S04-108
FIELDBOOK	SDR

NORTHVIEW ESTATES - FIRST ADDITION
SPOKANE COUNTY, WASHINGTON

DETENTION POND PLAN AND DETAILS

CAD NO S04-108-SD10 .DWG
SHEET 10 OF 10

NORTHVIEW ESTATES - FIRST ADDITION
SPOKANE COUNTY, WASHINGTON

EROSION NOTES

PROPERTY OWNER – HOWES QUALITY DEVELOPMENT, RON HOWES

PERMIT APPLICANT – HOWES QUALITY DEVELOPMENT OR CONTRACTOR

CONTACT PERSON – RON HOWES OR CONTRACTOR

PROJECT ADDRESS – NORTHVIEW ESTATES AND JOHANNSEN ROAD

PLAN PREPARED BY – THOMAS, DEAN & HOSKINS, INC.

PROJECT DESCRIPTION –CONSTRUCTION OF WATER MAIN AND SERVICES, SEWER MAIN AND SERVICES, DRAINAGE INLETS AND PIPE, DRAINAGE SWALES AND ASPHALT ROAD FOR 69 LOT RESIDENTIAL DEVELOPMENT.

DESCRIPTION OF ESC MEASURES – ROCK CONSTRUCTION ENTRY AT JOHANNSEN ROAD AND ORCHARD ROAD. INSTALLATION OF SILT FENCE AT THE NORTH AND SOUTH ENDS OF THE PROJECT

EXISTING VEGETATION – VACANT LAND, TILLED WITH GRASS AND WEED STUBBLE

SITE SOILS – UHLIG SILT LOAM

EROSION CONTROL NOTES

1. AN EROSION/SEDIMENTATION CONTROL (ESC) PLAN IS REQUIRED FOR THIS PROJECT. IMPLEMENTATION OF THE ESC PLAN, AND CONSTRUCTION, MAINTENANCE, AND UPGRADING OF THE ESC FACILITIES ARE THE RESPONSIBILITY OF THE DEVELOPER UNTIL ALL CONSTRUCTION IS COMPLETED AND ACCEPTED BY SPOKANE COUNTY, OR UNTIL VEGETATION IS ESTABLISHED THROUGHOUT THE SITE, AND ACCEPTED BY SPOKANE COUNTY, WHICHEVER IS LATER.

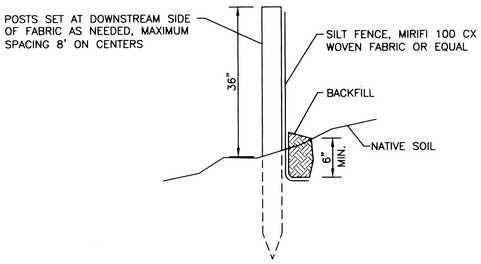
2. APPROVAL OF THE ESC PLAN DOES NOT CONSTITUTE APPROVAL OF ANY OF THE PROPOSED ROAD, STORM DRAINAGE, GRADING OR UTILITY DESIGN ELEMENTS SHOWN ON THE ESC PLAN.

3. THE EROSION/SEDIMENTATION CONTROL MEASURES SHOWN ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. THE CONTRACTOR SHALL INSPECT AND MAINTAIN THESE ESC MEASURES DAILY, AND SHALL MAINTAIN AND UPGRADE THESE MEASURES AS NECESSARY TO PREVENT SEDIMENT–LADEN WATER FROM EITHER FLOWING OFF THE SITE, OR INTO NEW/EXISTING STORM DRAINAGE FACILITIES, SUCH AS DRYWELLS, CULVERTS, OR GRAVEL GALLERIES.

4. THE CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR INSTALLING ROCK CONSTRUCTION ENTRIES AT ANY AND ALL LOCATIONS USED TO ENTER OR EXIT THE PROJECT SITE..

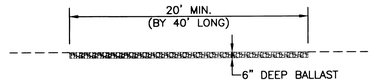
5. GEOTEXTILE FABRIC IS TO BE PLACED ON THE RIMS OF DRYWELLS, CATCH BASINS AND INLETS UNTIL SUCH TIME THE VEGETATION ON THE SITE IS ESTABLISHED AND THE THREAT OF SEDIMENT DEPOSITION INTO THE DRAINAGE SYSTEM IS MITIGATED.

6. CONCRETE TRUCK WASHOUT SHALL NOT BE DONE IN DRAINAGE SWALES OR PONDS. CONCRETE TRUCKS SHALL NOT WASH OUT IN IN AREAS THAT COULD DRAIN INTO SWALES OR PONDS.

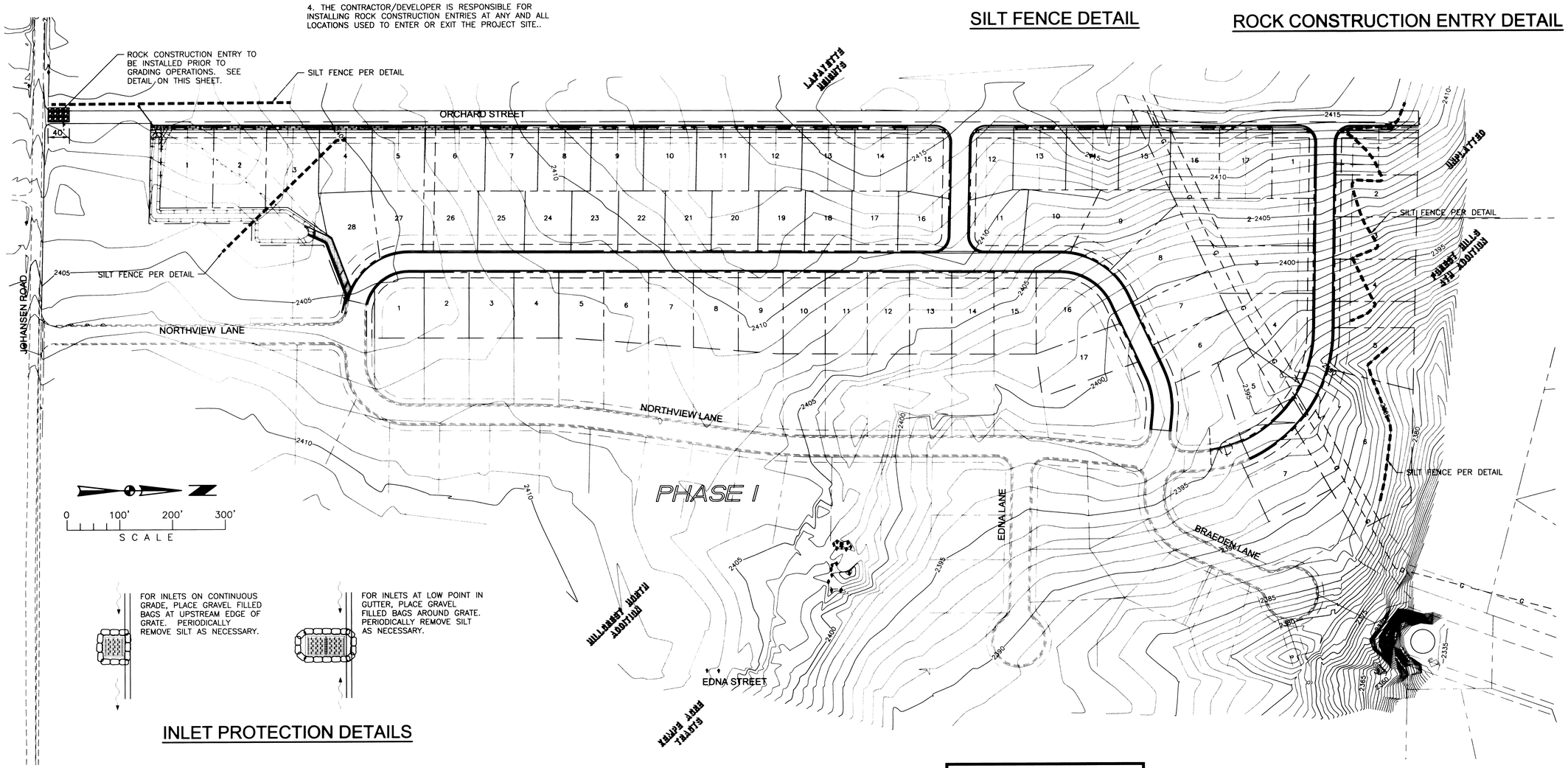


SILT FENCE DETAIL

ROCK CONSTRUCTION ENTRY TO BE CONSTRUCTED WHERE SHOWN ON PLANS AND AT OTHER MAIN ENTRIES TO CONSTRUCTION SITE.



ROCK CONSTRUCTION ENTRY DETAIL



INLET PROTECTION DETAILS

THIS PLAN WAS PREPARED BY ME TO MEET ESC PLAN REQUIREMENTS AS LISTED IN CHAPTER 4.5 OF THE "GUIDELINES FOR STORMWATER MANAGEMENT"

DAVE WALL, P.E. DATE

CALL BEFORE YOU DIG
456-8000
ONE CALL NUMBER
48 HOUR NOTICE REQUIRED

DEVELOPER DATE 10-10-05

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P-17448
DATE ACCEPTED: 10-07-05
ACCEPTANCE EXPIRES: 10-07-07
PROJECT LANE MILES PUBLIC: .97
PROJECT LANE MILES PRIVATE: 1.17
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 REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

DAVID A. WALL 31812 REGISTERED PROFESSIONAL ENGINEER STATE OF WASHINGTON
EXPIRES: 10/23/05

P-17448
Surveyed by

REVISIONS
DESCR DATE BY
DESCR DATE BY
DESCR DATE BY

THOMAS, DEAN & HOSKINS, INC.
ENGINEERING CONSULTANTS
MONTANA IDAHO WASHINGTON
GREAT FALLS–BOZEMAN–KALISPELL
SPOKANE LEWISTON

TD&H

DRAWN BY:	EJD
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NORTHVIEW ESTATES - FIRST ADDITION
SPOKANE COUNTY, WASHINGTON

EROSION CONTROL PLAN

CAD NO:S04-108-EC01.DWG

SHEET 1 OF 1