DESIGNATED REPRESENTATIVE. 3. PRIOR TO ANY SITE WORK, THE CONTRACTOR SHALL CONTACT THE CHIEF INSPECTOR FOR LAND DEVELOPMENT DIVISION AT (425) 388-3385 TO SCHEDULE A PRECONSTRUCTION CONFERENCE. IF FIELD CHANGES REQUIRE REVISIONS, AN ENGINEERED PLAN, STAMPED AND SIGNED BY THE ENGINEER OF RECORD SHALL BE SUBMITTED AND APPROVED PRIOR TO CONSTRUCTION. ENGINEERED AS-BUILTS SHALL BE REQUIRED PRIOR TO SITE APPROVAL.

4. SEDIMENT LADEN WATERS SHALL NOT ENTER THE NATURAL

DRAINAGE SYSTEM. PER CHAPTER 7.53 SCC 5. TRENCH BACK FILL OF NEW UTILITIES AND STORM DRAINAGE FACILITIES SHALL BE COMPACT TO 95% MAXIMUM DENSITY (MODIFIED PROCTOR) UNDER ROADWAYS AND 90% MAXIMUM DENSITY (MODIFIED PROCTOR) OFF ROADWAYS, AS SPECIFIED IN SECTION 2-03.3(14)C COMPACTING EARTH EMBANKMENTS METHOD B. A REPRESENTATIVE FROM A QUALIFIED SOIL TESTING FIRM SHALL CONDUCT THE TESTS ON SITE AND COPIES OF THE RESULTS SHALL BE PROVIDED TO THE

COUNTY INSPECTOR, PROVIDE COPY W/ A/B PLANS. 6. THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. LOCATION OF UTILITIES SHOWN ON

CONSTRUCTION PLANS ARE BASED ON BEST RECORDS AVAILABLE AND ARE SUBJECT TO VARIATION. CALL BEFORE YOU DIG AT 1-800-424-5555. 7. THE CONTRACTOR SHALL NOTIFY X-SOUND ENGINEERING, THE OWNER AND THE COUNTY INSPECTOR WHEN CONFLICTS BETWEEN THE PLANS AND FIELD CONDITIONS EXIST PRIOR TO CONSTRUCTION AND SAID CONFLICTS SHALL BE RESOLVED PRIOR TO PROCEEDING WITH CONSTRUCTION. 8. A GRADING PERMIT ISSUED PURSUANT TO THE SCC 30.63A, 30.63B AND CHAPTER 18 IBC AND APPROVAL OF THE TEMPORARY EROSION AND SEDIMENTATION CONTROL PLAN SHALL HAVE BEEN OBTAINED FROM THE PLANNING & DEVELOPMENT SERVCES (PDS) FOR ANY ON SITE GRADING WHICH IS NOT EXPRESSLY EXEMPT BY THE UDC

9. THE CONTRACTOR SHALL KEEP A SET OF THE LATEST EDITION OF THE SNOHOMISH COUNTY E.D.D.S. ON SITE AT ALL TIMES. 10. MONUMENTS AND PROPERTY CORNERS SHALL BE PROTECTED DURING CONSTRUCTION. A LICENSED SURVEYOR SHALL OBTAIN A PERMIT FOR THE REMOVAL OR REPLACEMENT OF ANY R/W MONUMENTS, SURVEY MONUMENTS, OR PROPERTY CORNERS IN ACCORDANCE WITH STATE LAW AND WAC 332-120 PRIOR TO ANY DISTURBANCE TO THE CORNER. THE POINTS: TO BE PROTECTED OR REPLACED SHALL BE LOCATED BY THE PROJECT SURVEYOR OR ENGINEER AND SHOWN ON THE CONSTRUCTION PLANS. 11. SURVEY MONUMENTS SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH SNOHOMISH COUNTY ENGINEERING DESIGN AND DEVELOPMENT STANDARDS (E.D.D.S.), CHAPTER 4-03, DETAIL 4-130, AND

12. THE CONTRACTOR SHALL KEEP TWO SETS OF PLANS ON SITE AT ALL TIMES FOR RECORDING AS-BUILT INFORMATION; ONE SET SHALL BE SUBMITTED TO X-SOUND ENGINEERING AT COMPLETION OF CONSTRUCTION AND PRIOR TO FINAL ACCEPTANCE OF WORK.

13. BLUE STREET REFLECTORS SHALL BE PLACED APPROXIMATELY ONE FOOT OFFSET FROM ROAD CENTERLINE TO INDICATE LOCATION OF FIRE HYDRANTS, PER UDC CHAPTER 30.53A.330(12) 14. COLOR CODING OF FIRE HYDRANTS SHALL BE ACCOMPLISHED ACCORDING

TO FLOW PER UDC CHAPTER 30.53A.330(12)(a). 15. THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR INTERIM TRAFFIC CONTROL DURING CONSTRUCTION ON OR ALONG TRAVELED COUNTY ROADWAYS. THE DEVELOPER/CONTRACTOR MUST SUBMIT A TRAFFIC CONTROL PLAN TO PUBLIC WORKS (PERMIT COUNTER) AND RECEIVE APPROVAL PRIOR TO COMMENCEMENT OF

16. DURING PROJECT CONSTRUCTION TEMPORARY ROADWAY STRIPING, CHANNELIZATION AND SIGNING MAY BE REQUIRED. A TEMPORARY SIGNING AND CHANNELIAZTION PLAN IS REQUIRED AT THE REQUEST OF THE ENGINEER. APPROVAL BY THE COUNTY TRAFFIC ENGINEER IS REQUIRED PRIOR TO ANY CONTRUCTION. 17. FOR ALL UNDERGROUND UTILITY INSTALLATION WITHIN COUNTY R/W THE WORKMANSHIP

AND MATERIALS SHALL BE IN ACCORDANCE WITH EDDS SECTIONS 8-04, 8-05, 8-09 AND THE MOST RECENT COPY OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, RIDGE AND MUNICIPAL CONSTRUCTION (WSDOT/APWA). 8. PRIOR TO PLACING ANY SURFACE MATERIALS ON THE ROADWAY, IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER OR UTILITY TO PROVIDE DENSITY TEST REPORTS (AS SPECIFIED IN EDDS) CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF WASHINGTON, LEDDS 8-051

SITE GRADING AND T.E.S.C.P. NOTES

1. CLEARING LIMITS VIOLATIONS, NONCOMPLIANCE WITH THE EROSION CONTROL REQUIREMENTS OR WATER QUALITY REQUIREMENTS MAY RESULT IN REVOCATION OF PROJECT PERMITS, PLAN APPROVAL AND BOND FORECLOSURES.

2. PRIOR TO ANY SITE CONSTRUCTION TO INCLUDE CLEARING/LOGGING OR GRADING THE SITE/LOT CLEARING LIMITS SHALL BE LOCATED AND FIELD IDENTIFIED BY THE PROJECT SURVEYOR AS REQUIRED BY THESE PLANS. THE PROJECT SURVEYOR'S NAME AND TELEPHONE NUMBER IS DAVID R. DOWNING

& ASSOCIATES AT (360) 623-5385. 3. THE DEVELOPER/DESIGNATED REPRESENTATIVE IS RESPONSIBLE FOR WATER QUALITY. THE EROSION CONTROL SPECIALIST NAME 4. ALL EARTH WORK SHALL BE PERFORMED IN ACCORDANCE WITH COUNTY STANDARDS. PRECONSTRUCTION SOILS INVESTIGATION MAY BE REQUIRED TO EVALUATE SOILS STABILITY.

5. ALL DISTURBED AREAS SUCH AS RETENTION FACILITIES, ROADWAY BACKSLOPES, ETC. SHALL BE SEEDED WITH A PERENNIAL GROUND COVER GRASS TO MINIMIZE EROSION. GRASS SEEDING WILL BE DONE USING AN APPROVED HYDROSEEDER OR AS OTHERWISE

APPROVED BY SNOHOMISH COUNTY. 6. IMMEDIATELY FOLLOWING FINISH GRADING, PERMANENT VEGETATION (CONSISTING OF RAPID, PERSISTENT AND LEGUME) WILL BE APPLIED (MINIMUM 80 LBS PER ACRE). THIS IS TO INCLUDE THE FOLLOWING: 20% ANNUAL, PERENNIAL OR HYBRID RYE GRASS, 40% CREEPING RED FESCUE,

40% WHITE CLOVER. HYDROSEED REQUIRED. 7. ADDITIONAL OR ALTERNATIVE T.E.S.C. MEASURES MAY BE EMPLOYED DEPENDING ON LOCAL WEATHER CONDITIONS AT THE TIME OF CONSTRUCTION: THESE MAY INCLUDE, BUT ARE NOT LIMITED TO: HAY BALES, ROCK CONSTRUCTION ENTRANCE, JUTE MESH EROSION CONTROL BLANKET,

STRAW MULCH, HOG FUEL, WOOD CHIPS, ETC. 8. STOCKPILES ARE TO BE LOCATED IN SAFE AREAS AND ADEQUATELY PROTECTED BY TEMPORARY PLASTIC COVER OR SEEDING AND MULCHING. SEEDING TYPE SHALL BE 20% ANNUAL, PERENNIAL OR HYBRID RYE GRASS, 40% CREEPING RED FESCUE 40% WHITE CLOVER. FERTILIZER SHALL BE APPLIED AT THE RATE OF 400LBS PER ACRE OF 10-20-20 OR EQUIVALENT. 9. ALL STRUCTURAL FILLS SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY BY MODIFIED PROCTOR TEST. PROVIDE COPY W/ A/B PLANS.

10. T.E.S.C. MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE WORK (SEE ATTACHED PLAN). 11. SILT AND SEDIMENT IN PRESETTLING BASIN SHALL BE CLEANED TO THE DESIGN BOTTOM ELEVATION PRIOR TO CONSTRUCTION ACCEPTANCE.

12. UTILITY CONSTRUCTION BMP'S SHALL CONSIST OF FILTER FABRIC FENCE LOCATED DOWN-SLOPE OF AND PARALLEL TO TRENCHING, PROTECTION OF STOCKPILES WITH PLASTIC OR JUTE NETTING, TEMPORARY COVER OF DISTURBED AREAS WITH STRAW, WOOD CHIPS, ETC., AND PERMANENT VEGETATION ESTABLISHMENT IN NON-TRAVELED AREAS.

X-SOUND ENGINEERING, INC.

CIVIL ENGINEER:

P.O. BOX 1265

FREELAND, WA 98249

(360) 331-3113 (TEL)

(360) 331-7114 (FAX)

SITE GRADING AND T.E.S.C.P. NOTES (CONT.)

13. THE SURFACE OF ALL EARTH TO RECEIVE FILL WITHIN BUILDING LOTS IN EXCESS OF TWO FEET SHALL BE STRIPPED OF ORGANIC MATTER AND EXCAVATED TO A FIRM BEARING LAYER PRIOR TO RECEIVING FILL. STRUCTURAL MATERIAL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 10 INCHES AND COMPACTED TO 95% PER ASTM D-1557. COPIES OF THE COMPACTION TESTS SHALL BE PROVIDED TO THE OWNER AND THE COUNTY INSPECTOR, PROVIDE COPY W/ A/B PLANS. 14. STRUCTURAL FILL MATERIAL SHALL BE FREE OF ORGANICS AND HAVE LESS THAN 5 PERCENT PASSING A NUMBER 200 SIEVE, UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER AND THE COUNTY INSPECTOR.

15. FROM MAY 1 TO SEPTEMBER 30, NO SOIL MAY REMAIN EXPOSED FOR MORE THAN 7 DAYS. FROM OCT. 1 TO APRIL 30 NO SOIL MAY REMAIN EXPOSED FOR MORE THAN 2 DAYS 16. DENUDED AREAS SHALL BE COVERED BY MULCH, SOD, PLASTIC OR OTHER

COVER BMP'S AS NEEDED. 17. SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT RETENTION BMP'S WITHIN 24 HOURS OF FORMATION. 18. GRADING AND CONSTRUCTION SHALL BE TIMED AND CONDUCTED IN STAGES TO MINIMIZE SOIL EXPOSURE.

19. IF SEDIMENT IS TRANSPORTED ONTO PAVED AREAS, THE PAVEMENT SHALL IMMEDIATELY BE CLEANED WITH A STREET CLEANER OR BE MANUALLY SWEPT. 20. THE DEVELOPER/CONTRACTOR SHALL MAINTAIN AND REPAIR AS NECESSARY ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL BMP'S TO ASSURE THEIR CONTINUED PERFORMANCE THROUGH CONSTRUCTION ACCEPTANCE AND EXTENDING TO THE RELEASE OF ALL ASSOCIATED WARRANTY SECURITY AND

MAINTENANCE SECURITY. 21. THE DEVELOPER/CONTRACTOR SHALL PROTECT STORM SEWER INLETS RECEIVING STORM WATER RUNOFF DURING CONSTRUCTION SO THAT WATER WILL NOT ENTER THE INLET WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO MINIMIZE THE AMOUNT OF SEDIMENT ENTERING THE INLET. THIS MAY BE ACCOMPLISHED BY INSERTING FILTER FABRIC BETWEEN THE FRAME AND GRATE AND PROVIDING A SUMP AROUND THE PERIMETER OF EACH INLET STRUCTURE.

22. NO GRADING ALLOWED BETWEEN OCT. 1 THRU APRIL 30 W/O SWPPP PREPARED AND APPROVED IN ACCORDANCE WITH CHAPTER 7.53 S.C.C. 23. NO CUT OR FILL WITHIN 2' OF PROPERTY LINE 24. TEMPORARY BMP'S TO BE REMOVED WHEN PERMANENT VEGETATIVE COVER IS ESTABLISHED.

25. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BMPs ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTRUBED SOIL AREAS RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED. 26. STRUCTURAL BACKFILL AND COMPACTION OF VAULT, ROCKERY, RETAINING WALL FOOTINGS AND WALLS, AND ROADWAY TRENCH RESTORATION SHALL BE MONITORED, INSPECTED, AND COMPACTION TESTED BY A LICENSED GEOTECHNICAL ENGINEER. FIELD DENSITY TESTS SHALL INDICATE A MINIMUM COMPACTION OF 95% OF MAXIMUM DENSITY DETERMINED IN ACCORDANCE WITH ASTM D-1557-70 (MODIFIED PROCTOR). COMPACTION TEST RESULTS TO BE SUBMITTED TO COUNTY

WITH AS-BUILT DRAWINGS. 27. PARTICULAR CARE MUST BE TAKEN DURING SPREADER CONSTRUCTION TO ENSURE THAT THE LIP OF THE STRUCTURE IS LEVEL. IF THERE ARE ANY DEPRESSIONS IN THE LIP, FLOW WILL TEND TO CONCENTRATE AT THESE POINTS AND EROSION WILL OCCUR, RESULTING IN FAILURE OF THE OUTLET. THIS PROBLEM MAY BE AVOIDED BY USING A GRAVEL LIP OVER WHICH THE RUNOFF MUST FLOW WHEN EXITING THE SPREADER. REGULAR MAINTENANCE IS ESSENTIAL FOR THIS PRACTICE.

28. THE SPREADER SHOULD BE INSPECTED AFTER EVERY RUNOFF EVENT TO ENSURE THAT IT IS FUNCTIONING CORRECTLY. THE CONTRACTOR SHOULD AVOID THE PLACEMENT OF ANY MATERIAL ON OR PREVENT CONSTRUCTION TRAFFIC ACROSS THE STRUCTURE. IF THE SPREADER IS DAMAGED BY CONSTRUCTION TRAFFIC, IT SHALL BE IMMEDIATELY REPAIRED.

ROAD NOTES

1. PRIOR TO ANY SITE WORK, THE CONTRACTOR SHALL CONTACT THE CHIEF INSPECTOR FOR LAND DEVELOPMENT DIVISION AT (425) 388-3385 TO SCHEDULE A PRECONSTRUCTION CONFERENCE, FIELD CHANGES REQUIRING REDESIGN SHALL BE SUBMITTED AND APPROVED PRIOR TO CONSTRUCTION. ENGINEERED AS-BUILTS SHALL BE REQUIRED PRIOR TO SITE 2. THE CONTRACTOR SHALL KEEP A SET OF THE EDITION OF THE SNOHOMISH COUNTY EDDS ON SITE AT ALL TIMES THAT THE PROJECT WAS DESIGNED IN ACCORDANCE WITH. REMOVE ABANDONED PIPES WITHIN THE RIGHT-OF-ALL PIPES SHALL HAVE AMINIMUM OF 12" COVER AT THE TOP OF THE BELL, OR SHALL HAVE MINIMUM COVER PER THE MANUFACTURER'S SPECIFICATIONS, WHICHEVER IS GREATER. 5. PRIOR TO PLACING ANY SURFACE MATERIALS ON THE ROADWAY, IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER OR UTILITY TO PROVIDE DENSITY TEST REPORTS (AS SPECIFIED IN EDDS) CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF WASHINGTON. TEST RESULTS TO BE SUBMITTED WITH AS-BUILT DRAWINGS. 6. THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR INTERIM TRAFFIC CONTROL DURING CONSTRUCTION ON OR ALONG TRAVELED COUNTY ROADWAYS. THE DEVELOPER/ CONTRACTOR MUST SUBMIT A TRAFFIC CONTROL PLAN TO PUBLIC WORKS (PERMIT COUNTER) AND RECEIVE APPROVAL PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. 7. FOR ALL UNDERGROUND UTILITY INSTALLATION WITHIN THE COUNTY RIGHT-OF-WAY THE WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH EDDS SECTIONS 8-02, 8-04, 8-05, 8-09 AND THE MOST RECENT COPY OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (WSDOT/APWA). 8. CONSISTENT WITH EDDS CHAPTER 8-05, ANY DEVELOPERS, UTILITIES, OR OTHERS INTENDING TO TRENCH IN EXISTING OR PROPOSED COUNTY RIGHT-OF-WAY SHALL NOTIFY PLANNING AND DEVELOPMENT SERVICES INSPECTION SECTION NOT LESS THAN 3 WORKING DAYS PRIOR TO PERFORMING THE WORK. MUST APPLY FOR EDDS DEVIATION IF NOT CONSISTENT WITH EDDS CHAPER 8. 9. ALL FIRE HYDRANT INSTALLATIONS SERVING THE DEVELOPMENT, EITHER PUBLIC OR PRIVATE, SHALL COLOR CODE THE TOPS OF THE HYDRANTS IN ACCORDANCE WITH SCC TABLE 30.53A.330(12)(A). IN ADDITION TO COLOR CODING HYDRANTS THE DEVELOPER SHALL ALSO INSTALL BLUE STREET REFLECTORS TO INDICATE HYDRANT LOCATIONS. COLOR CODING OF FIRE HYDRANTS AND THE INSTALLATION OF BLUE STREET REFLECTORS SHALL BE COMPLETED PRIOR TO FINAL APPROVAL OF ANY DEVELOPMENT OR NEW CONSTRUCTION.

CHANNELIZATION AND SIGNING

APPROVED PERMANENT TRAFFIC CONTROL SIGNS AND MARKINGS WITHIN THE PUBLIC RIGHT-OF-WAY (ROW) SHALL BE INSTALLED BY COUNTY FORCES. THE DEVELOPER SHALL PAY FOR INSTALLATION OF ALL DEVICES. THE INSPECTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS (DPW). TRAFFIC OPERATIONS WHEN THE PROJECT IS READY FOR CHANNELIZATION AND SIGNING.

DURING PROJECT CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TEMPORARY CONSTRUCTION SIGNS, TRAFFIC CONTROL SIGNS, DELINEATORS AND TEMPORARY MARKINGS AS REQUIRED. ALL SIGNS, TRAFFIC CONTROL SIGNS, DELINEATORS AND TEMPORARY MARKINGS SHALL BE ACCORDING TO THE CURRENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

ACCESS FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES DURING

AFTER WORK WITHIN THE TRAVELED ROADWAY IS COMPLETED AT THE END OF EACH DAY, THE ROAD SHALL BE CLEARED OF DEBRIS AND EQUIPMENT AND COMPLETELY OPEN TO TRAFFIC (UNLESS OTHERWISE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS OF THE COUNTY), LIGHTED BARRICADES OR BARRELS SHALL DELINEATE ALL AREAS WITHIN THE ROADWAY AFFECTED BY CONSTRUCTION (I.E. EDGE OF PAVEMENT, NEW CURB EDGES NOT ILLUMINATED BY STREET LIGHTS).

A ROW USE PERMIT IS REQUIRED FROM THE DPW FOR ANY LANE/ROAD CLOSURES WITHIN THE SNOHOMISH COUNTY ROW. CONTACT DPW AT LEAST 15 DAYS PRIOR TO CONSTRUCTION ACTIVITY WITHIN THE PUBLIC ROW. SNOHOMISH COUNTY DOES NOT HAVE JURISDICTION ON STATE ROUTES OR ROADWAYS WITHIN INCORPORATED CITIES, PRIVATE ROADS OR PRIVATE PROPERTY. FOR ANY ACTIVITY ENCROACHING ON SUCH PROPERTY THE APPLICANT SHALL OBTAIN PERMISSION FROM THE APPROPRIATE AUTHORITY.

OR/CONTACT:

(425) 259-1457

TRAHM PROPERTIES, LLC

1712 PACIFIC AVE. SUITE 104

ATTN: BOB STRAHM

EVERETT, WA 98201

APPLICABLE HEARING EXAMINER'S CONDITIONS

SW 1/4, SECTION 33, TOWNSHIP 28 N, RANGE 5 E, W.M.

BII: THE PLATTER SHALL MARK WITH TEMPORARY MARKERS IN THE FIELD THE BOUNDARY OF ALL NATIVE GROWTH PROTECTION AREAS (NGPA) REQUIRED BY CHAPTER 30.62 SCC, OR THE LIMITS OF THE PROPOSED SITE DISTURBANCE OUTSIDE OF THE NGPA, USING METHODS AND MATERIALS ACCEPTABLE TO THE COUNTY. BIII: A FINAL MITIGATION PLAN BASED ON THE CRITICAL AREAS STUDY BUFFER AVERAGING AND MITIGATION PLAN PREPARED BY WELAND RESOURCES, INC. REVISED JULY 14, 2006 (EXHIBIT 15) SHALL BE SUBMITTED FOR REVIEW AND APPROVAL DURING THE CONSTRUCTION REVIEW PHASE OF THIS PROJECT. CIII: ALL CRITICAL AREAS SHALL BE DESIGNATED NATIVE GROWTH PROTECTION AREAS

LANGUAGE ON THE FACE OF THE PLAT; ALL NATIVE GROWTH PROTECTION AREAS SHALL BE LEFT PERMANENTLY UNDISTURBED IN A SUBSTANTIALLY NATURAL STATE. NO CLEARING, GRADING, FILLING, BUILDING CONSTRUCTION OR PLACEMENT, OR ROAD CONSTRUCTION OF ANY KIND SHALL OCCUR, EXCEPT REMOVAL OF HAZARDOUS TREES. THE ACTIVITIES AS SET FORTH IN UDC

(NGPA) (UNLESS OTHER AGREEMENTS HAVE BEEN MADE) WITH THE FOLLOWING

30.91N.010 ARE ALLOWED WHEN APPROVED BY THE COUNTY.

CIV: ADDITIONAL RIGHT-OF-WAY, PARALLEL AND ADJACENT TO THE RIGHT-OF-WAY CENTERLINE OF SEATTLE HILL ROAD SHALL BE DEDICATED TO THE COUNTY ALONG THE DEVELOPMENT'S FRONTAGE SUCH THAT 40 FEET OF RIGHT-OF-WAY EXISTS FROM CENTERLINE OF THE SEATTLE HILL ROAD RIGHT-OF-WAY.

CV: THE INTERNAL PLAT ROAD RIGHT-OF-WAYS SHALL HAVE BEEN WIDENED TO 50 FEET OR A DEVIATION TO THE DESIGN STANDARDS SHALL HAVE BEEN GRANTED. DI CONSTRUCTION OF URBAN STANDARD FRONTAGE IMPROVEMENTS ON SEATTLE HILL

ROAD SHALL HAVE BEEN COMPLETED AND APPROVED BY THE COUNTY. DII: NATIVE GROWTH PROTECTION AREA BOUNDARIES (NGPA) SHALL HAVE BEEN PERMANENTLY MARKED ON THE SITE PRIOR TO FINAL INSPECTION BY THE COUNTY, WITH BOTH NGPA SIGNS AND ADJACENT MARKERS WHICH CAN BE MAGNETICALLY LOCATED (E.G. REBAR, PIPE, 20 PENNY NAILS, ETC.). THE PLATTOR MAY USE OTHER PERMANENT METHODS AND MATERIALS PROVIDED THEY ARE FIRST APPROVED BY THE COUNTY: WHERE AN NGPA BOUNDARY CROSSES ANOTHER BOUNDARY (E.G. LOT, TRACT, PLAT, ROAD, ETC.I, A REBAR MARKER WITH SURVEYORS' CAP AND LICENSE NUMBER MUST BE PLACED AT THE LINE CROSSING.

NGPA SIGNS SHALL HAVE BEEN PLACED NO GREATER THAN 100 FEET APART AROUND THE PERIMETER OF THE NGPA. MINIMUM PLACEMENT SHALL INCLUDE ONE TYPE 1 SIGN PER WETLAND, AND AT LEAST ONE TYPE 1 SIGN SHALL BE PLACED IN ANY LOT THAT BORDERS THE NGPA, UNLESS OTHERWISE APPROVED BY THE COUNTY BIOLOGIST. THE DESIGN AND PROPOSED LOCATIONS FOR THE NGPA SIGNS SHALL BE SUBMITTED TO THE LAND USE DIVISION FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. DIII: THE FINAL WETLAND MITIGATION PLAN SHALL BE COMPLETELY IMPLEMENTED (BUFFER ENHANCEMENT AND BUFFER ADDITION).

EI: ADD DEVELOPMENT ACTIVITY SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER

STORM DRAINAGE NOTES

UNLESS OTHERWISE NOTED, ALL STORM SEWER PIPE SHALL BE CORRUGATED POLYETHYLENE PIPE (CPP). COVERAGE REQUIREMENTS FOR 12" CPP IS 1.0' MINIMUM, 20' MAXIMUM. THE MATERIAL SUPPLIED UNDER THIS SPECIFICATION SHALL BE HIGH DENSITY CORRUGATED POLYETHYLENE SMOOTH INTERIOR PIPE AND SHALL BE MANUFACTURED IN CONFORMITY WITH THE LATEST AASHTO SPECIFICATIONS OR M 294 TYPE S AND THE MATERIAL COMPOUND SHALL CONFORM TO ASTM D 3350. PIPE JOINTS AND FITTINGS SHALL CONFORM TO AASHTO M 294. COUPLERS SHALL COVER NOT LESS THAN ONE FULL CORRUGATION ON EACH ANNULAR SECTION OF PIPE.

2. ALL PIPE SHALL BE PLACED ON STABLE EARTH, OR IF IN THE OPINION OF THE COUNTY INSPECTOR, THE EXISTING FOUNDATION IS UNSATISFACTORY, THEN IT SHALL BE EXCAVATED BELOW GRADE AND BACKFILLED WITH A GRAVEL MATERIAL TO SUPPORT THE PIPE.

THE BACKFILL SHALL BE PLACED EQUALLY ON BOTH SIDES OF THE PIPE OR PIPE-ARCH IN LAYERS WITH A LOOSE AVERAGE DEPTH OF 6", MAXIMUM DEPTH 9", THOROUGHLY TAMPING EACH LAYER. THESE COMPACTED LAYERS MUST EXTEND FOR ONE DIAMETER ON EACH SIDE OF THE PIPE OR TO THE SIDE OF THE TRENCH. MATERIALS TO COMPLETE THE FILL OVER PIPE SHALL BE THE SAME AS DESCRIBED IN WSDOT STANDARD SPECIFICATION 7-04.3(3) AND STANDARD SPECIFICATION 2-03.2(14)C, METHOD B & C.

4. ALL GRATES (INLET AND CATCH BASIN) SHALL BE DEPRESSED 0.1 FEET BELOW PAVEMENT LEVEL.

5. ALL CATCH BASINS TO BE TYPE I UNLESS OTHERWISE NOTED.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL MANHOLE, INLET, AND CATCH BASIN FRAMES AND GRATES JUST PRIOR TO POURING OF CURBS AND PAVING.

7. ALL CATCH BASINS WITH A DEPTH OVER 5.0 FEET TO THE FLOW LINE SHALL BE A TYPE II CB (MANHOLE).

8. ALL TYPE II CATCH BASIN MANHOLES AND ALL INLET AND CATCH BASINS SHALL HAVE LOCKING LIDS. ROLLED GRATES ARE NOT APPROVED FOR USE OUTSIDE OF COUNTY RIGHT-OF-WAY OR FOR USE WITH

9. STANDARD LADDER STEPS SHALL BE PROVIDED IN ALL CATCH BASINS/MANHOLES EXCEEDING 5 FEET IN DEPTH.

10. CATCH BASIN FRAME AND GRATES SHALL BE OLYMPIC FOUNDRY MODEL 5435, 5435A, OR 50503A, LOCKING TYPE OR EQUAL. MODEL 5435A IS REFERRED TO AS A "THROUGH CURB INLET" ON THE PLAN. MODEL 50503A IS REFERRED TO AS A "ROLLED GRATE INLET" IN THE

11. THE CULVERT ENDS SHALL BE BEVELED TO MATCH THE SIDE SLOPE. FIELD CUT OF CULVERT ENDS IS PERMITTED, WHEN APPROVED BY THE INSPECTOR.

12. BACKFILL AROUND PIPE SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 8-05D EDDS AND ACHIEVE A MINIMUM COMPACTION OF 95% OF MAXIMUM DENSITY PER ASTM D-1557.

13. STORM WATER RETENTION/DETENTION FACILITIES, STORM DRAINAGE PIPE AND CATCH BASINS SHALL BE FLUSHED AND CLEANED PRIOR TO SNOHOMISH COUNTY ACCEPTANCE.

14. ENERGY DISSIPATION PADS SHALL HAVE A MINIMUM THICKNESS OF 12 INCHES AND EXTEND A MINIMUM OF 8 FEET FROM THE DISCHARGE POINT.

15. REMOVE ALL ABANDOND PIPES W/ IN THE RIGHT-OF-WAY 16. ALL PIPES SHALL HAVE A MINIMUM OF 12" COVER AT THE TOP OF THE BELL, OR SHALL HAVE MINIMUM COVER PER THE MANUFACTURER'S SPECIFICATIONS, WHICHEVER IS GREATER. LEDDS 5-04 HJ

APPLETREE AT THOMAS LAKE

THOMAS LAKE COURT

CONSTRUCTION NOTES & PROJECT DATA

AS-BUILTS

1. LONGITUDINAL TRENCH - 2" ASPHALT CLASS B OVERLAY. TRANSVERSE TRENCH - 2" ASPHALT CLASS B OVERLAY WHERE MULTIPLE CROSSINGS BY SAME UTILITY.

2. EXISTING PAVEMENT

3. LONGITUDINAL TRENCH - 6" ACP OR 2" ACP + 4" ATB TRANSVERSE TRENCH - 8" ACP OR 2" ACP + 6" ATB CONCRETE, RESTORATION SHALL BE IN ACCORDANCE W/ SECTION 5-05 OF THE WSDOT/APWA SPECIFICATIONS.

4. NATIVE MATERIAL, BANK RUN GRAVEL, CSTC OR CONTROL DENSITY FILL MAY BE REQUIRED BY THE ENGINEER.

5. NEAT LINE CUT, CLEAN, HEAT AND TACK EDGES WITH SEALER CSS-1 & SEAL WITH HOT ASPHALT CEMENT.

6. TEMPORARY RESTORATION OF TRENCHES FOR OVERNIGHT USE SHALL BE ACCOMPLISHED BY USING COLD MIX, ATB OR STEEL PLATES.

7. PATCH SHALL BE MACHINE ROLLED FLUSH WITH EXISTING PAVEMENT AND SHALL BE PLACED PER SECTION 5-04 OF THE WSDOT/APWA SPECIFICATIONS.

8. COVER DEPTH OVER UNDERGROUND UTILITIES SHALL CONFORM TO FEDERAL AND STATE REGULATIONS.

9. TRENCHES IN CONCRETE PAVEMENT SHALL BE RESTORED USING TIE BARS OR DOWEL BARS IN ACCORDANCE WITH SECTION 5-05 OF THE WSDOT/APWA SPECIFICATIONS.

(SEE EDDS 8-02, 8-04 & 8-05)

TRENCH RESTORATION DETAIL SCALE: NTS

SWPPP 12 BMP ELEMENTS PER DOE

HE CLEARING LIMITS SHALL BE FLAGGED IN THE FIELD WITH LOGGER'S TAPE. -CLEARING LIMITS WILL BE IMPLEMENTED IN ACCORDANCE WITH THE CLEARING, GRADING AND EROSION CONTROL PLAN.

2: ESTABLISH CONSTRUCTION ACCESS
-STABILIZED CONSTRUCTION ENTRANCE AND PROVIDE TIRE WASH IF NECESSARY. THESE BMP'S SHALL BE IMPLEMENTED AS SHOWN ON THE EROSION CONTROL DRAWINGS

OR AS REQUESTED BY THE EROSION AND SEDIMENT CONTROL SPECIALIST. 3: CONTROL FLOW RATES
-SEDIMENT TRAPS WILL COLLECT RUNOFF TO PREVENT WATER FROM LEAVING THE SITE.

-THE DETENTION FACILITY WILL CONTROL FLOW RATES PER THE DRAINAGE MANUAL.

4: INSTALL SEDIMENT CONTROLS
-INSTALL SILT FENCE AT LOW END OF SITE. -INSTALL SEDIMENT TRAPS PER PLAN.

CALL BEFORE

YOU DIG

1-800-424-5555

5: STABILIZE SOILS
-PROVIDE TEMPORARY & PERMANENT SEEDING FOLLOWING FINAL GRADING. -PROVIDE DUST CONTROL WHEN DRY CONDITIONS EXIST.

6: PROTECT SLOPES
-ALL EXPOSED SLOPES SHALL BE COVERED W/ MULCH OR EROSION CONTROL BLANKETS

7: PROTECT DRAIN INLETS
-INSTALL FILTER FABRIC BETWEEN GRATE & FRAME OF ALL NEW AND EXISTING CATCH BASIN'S ON SITE OR ALONG FRONTAGE.

8: STABILIZE CHANNELS AND OUTLETS
-ALL CHANNELS SHALL BE SEEDED & MULCHED. -ALL OUTLETS SHALL HAVE RIP RAP PROTECTION IN ACCORDANCE W/ GENERAL NOTES.

9: CONTROL POLLUTANTS
-ALL DRAINAGE SHALL BE DIRECTED TO SEDIMENT TRAPS OR OTHER BMP'S TO REDUCE OR ELIMINATE SEDIMENT TRANSPORT FROM THE SITE.

10: CONTROL DEWATERING
-ALL DEWATERING SHALL BE DISSIPATED WITHIN PERVIOUS, VEGETATED AREAS OR OTHERWISE SECURE AS ADEQUATE DISPOSAL.

11: MAINTAIN BMP'S
-ALL BMP'S SHALL BE MAINTAINED TO PROVIDE ADEQUATE PROTECTION AS NEEDED.

12: MANAGE THE PROJECT
-THE ON-SITE EROSION CONTROL SPECIALIST SHALL DICTATE REVISIONS TO THE EROSION

CONSTRUCTION SEQUENCE 1) FLAG CLEARING LIMITS W/LOGGER'S TAPE, HAVE INSPECTED 2) ATTEND PRE-CON, INSTALL T.E.S.C. MEASURES 3) ROUGH GRADE SITE, CONSTRUCT POND AND WALLS 4) INSTALL SANITARY SEWER PER APPROVED SEWER PLANS

6) INSTALL WATER SYSTEM, UTILITY CROSSINGS 7) POUR CURB, GUTTER, PAVE ROADS 8) HYDROSEED OR MULCH EXPOSED GROUND

CERTIFIED EROSION CONTROL SPECIALIST:

DATE

DATE

5) INSTALL STORM DRAINAGE SYSTEM

425-308-1932

THESE RECORD DRAWINGS ARE SUBMITTED FOR

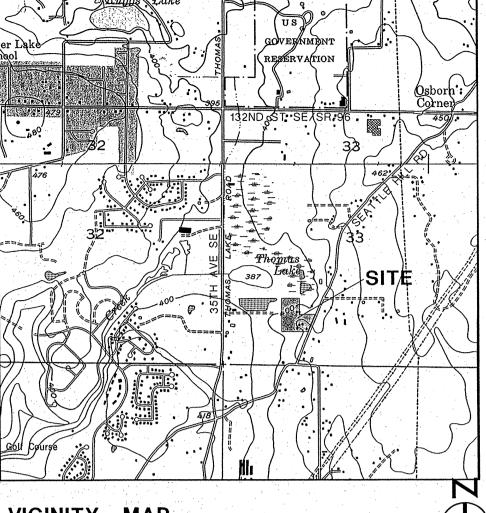
FOR APPROVAL ON (ENTER DATE) ____09/20/07

WE HERBY DECLARE THAT THE ROAD, STORM

PROJECT DEVELOPER OWNER

COUNTY-APPROVED CONSTRUCTION PLANS SIGNED

REVIEW ON A TRUE COPY OF THE



VICINITY MAP SCALE: 1" = 2000'

LEGAL DESCRIPTION:

PARCEL A:

LOT 2 OF SNOHOMISH COUNTY SHORT PLAT NO. SP-260 (11-82). RECORDED DECEMBER 21, 1982 UNDER RECORDING NO. 8212210141, RECORDS OF SNOHOMISH COUNTY, WASHINGTON.

LOT 1 OF SNOHOMISH COUNTY SHORT PLAT NO SP-306 (6-78), RECORDED AUGUST 11, 1978, UNDER RECORDING NO. 7808110274, RECORDS OF SNOHOMISH COUNTY, WASHINGTON.

PROPERTY TAX ACCT. NO.S

28053300301200, 28053300301300

DATUM:

NAVD '88 (SUBTRACT 3.67 TO ARRIVE AT NGVD '29)

TEMPORARY BENCH MARK

RIM OF CB LOCATION ON EAST SIDE OF SEATTLE HILL ROAD APPROX. STA 2+48, LT 21'.

GRADING QUANTITIES CUT: 7,903 CY (AB)

FILL: 7,903 CY (AB)

PROPOSED DEVELOPED GROUND COVER IS GRASS

SOIL TYPE/GROUND COVER SOIL TYPE IS ALDERWOOD GRAVELLY SANDY LOAM FOR THE DEVELOPMENT PORTION OF THE SITE AND MUKILTEO MUCK FOR THE REST OF THE SITE

SITE ADDRESS

14526 SEATTLE HILL ROAD SNOHOMISH ,WA 98296

APPLICANT/OWNER/DEVELOPER

ATTN: BOB STRAHM 1712 PACIFIC AVE. SUITE 104 EVERETT, WA 98201

SURVEYOR

(425) 259-1457

DAVID R. DOWNING & ASSOCIATES 4229 76TH DR NE. SUITE 104 MARYSVILLE, WA 98270 (360) 653-5385

SHEET INDEX

PO-1

CONSTRUCTION NOTES AND PROJECT DATA GRADING AND EROSION CONTROL PLAN (N) DRAINAGE PLAN

DRAINAGE PROFILES DETAILS STRUCTURAL DETAILS SEWER NOTES & PROJECT DATA

SEWER PLAN SWR-2 SEWER PROFILES SWR-3 WATER PLAN WTR-1 WATER NOTES & PROJECT DATA WTR-2

FINAL MITIGATION PLAN

POSTAL PLAN APPROVAL

RECEIVED AUG 28 2008

PFN: 05-119918

DATE OF REV. SNOCO APPROVAL APPROVAL

(SEWER LAYOUT CHANGES) SNOHOMISH COUNTY PLANNING DEVELOPMENT SERVICES

REVISION

CHANGE IN COVER OVER VAUL

CHANGE IN GRADES & DRN

DRAINAGE, GRADING AND OTHER IMPROVEMENTS ARE APPROVED FOR CONSTRUCTION LOCATED AS SHOWN ON THESE RECORD DRAWINGS

> 08/27/08 OR RANDOLPH R. SLEIGHT, PE, PLS R/W PERMIT NO.

DRAWN BY: AGT/WSJ SHEET C-1 OF 6

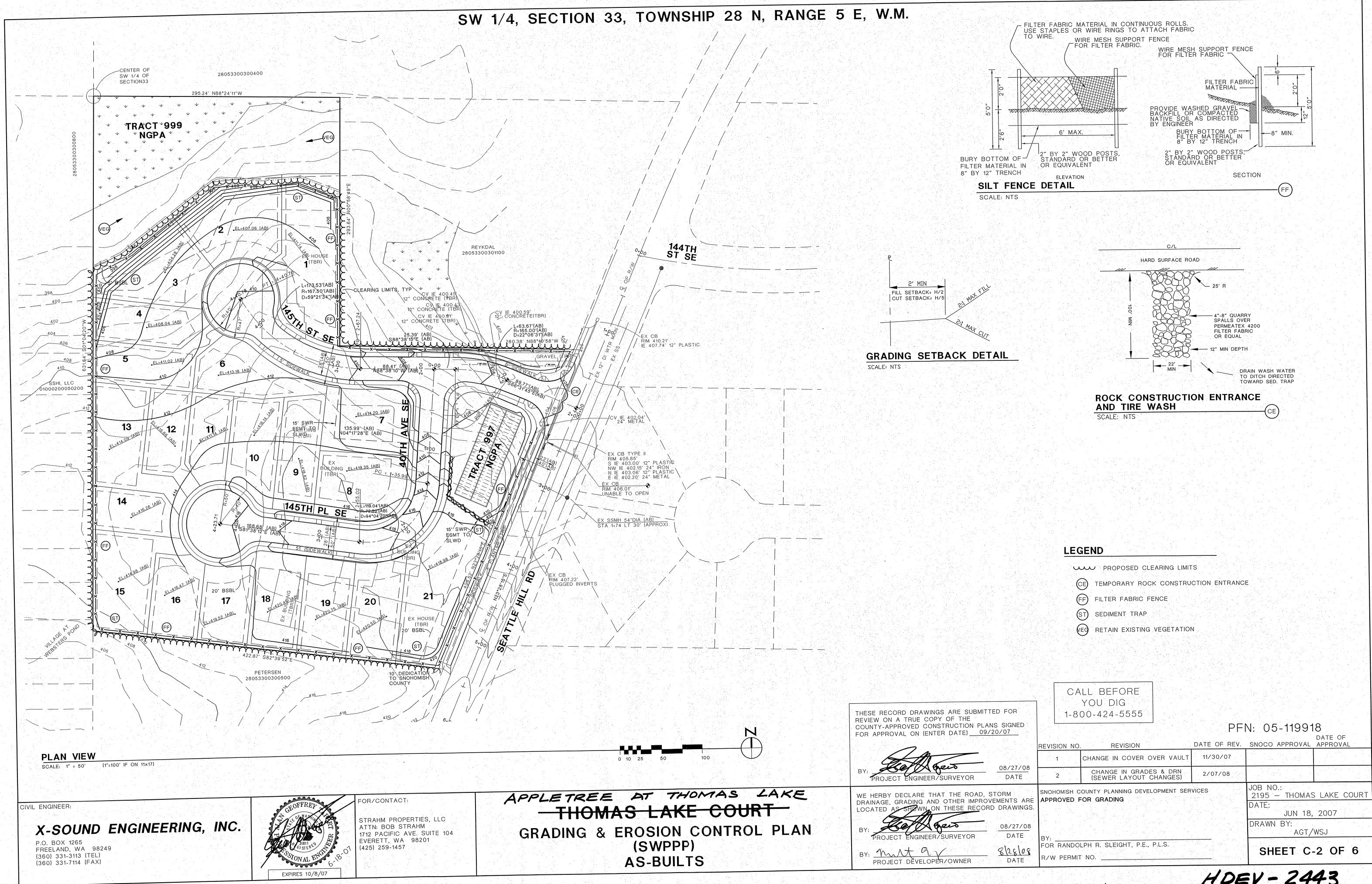
2195 - THOMAS LAKE COURT

JUN 18, 2007

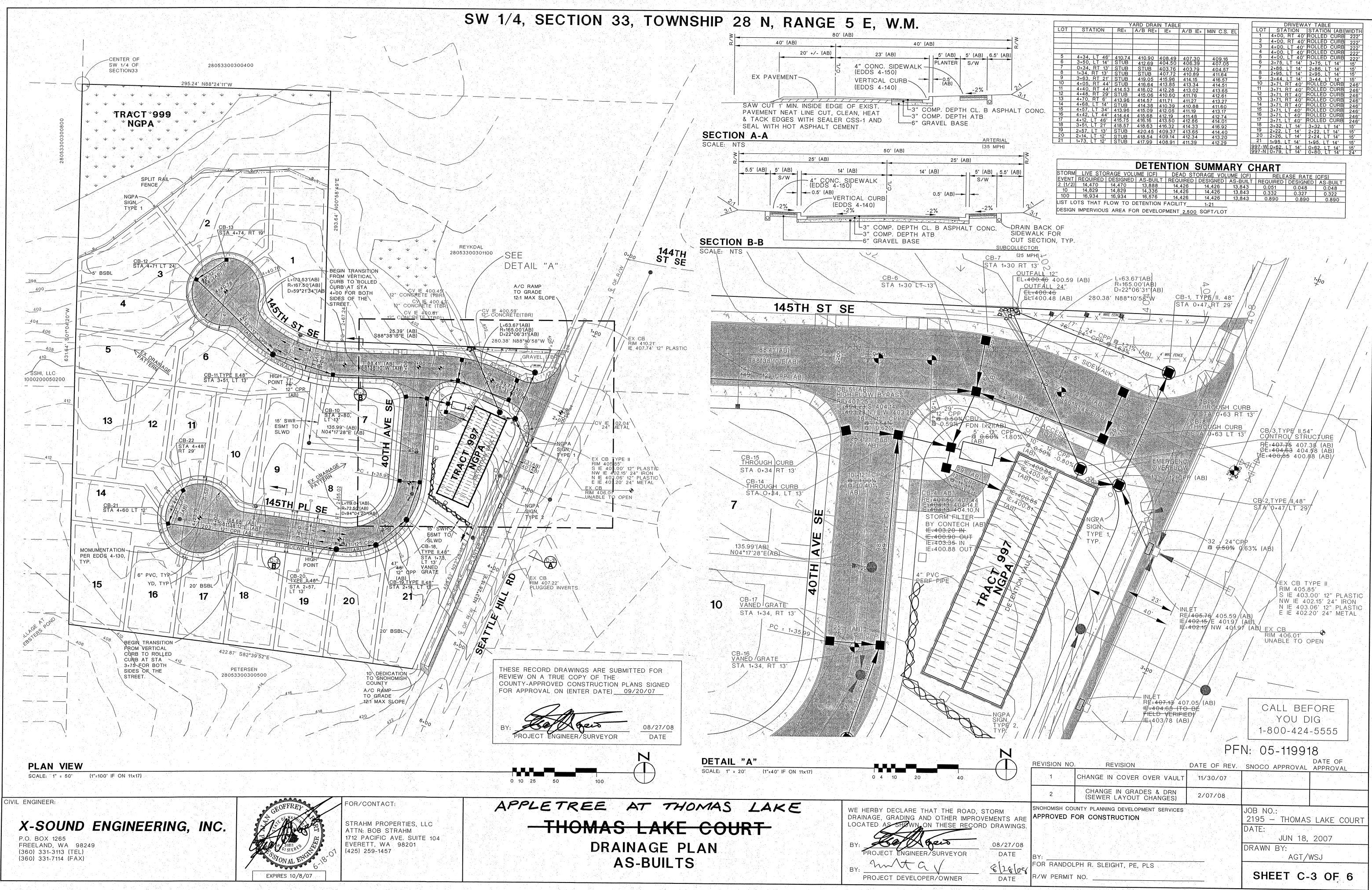
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REVISION NO.

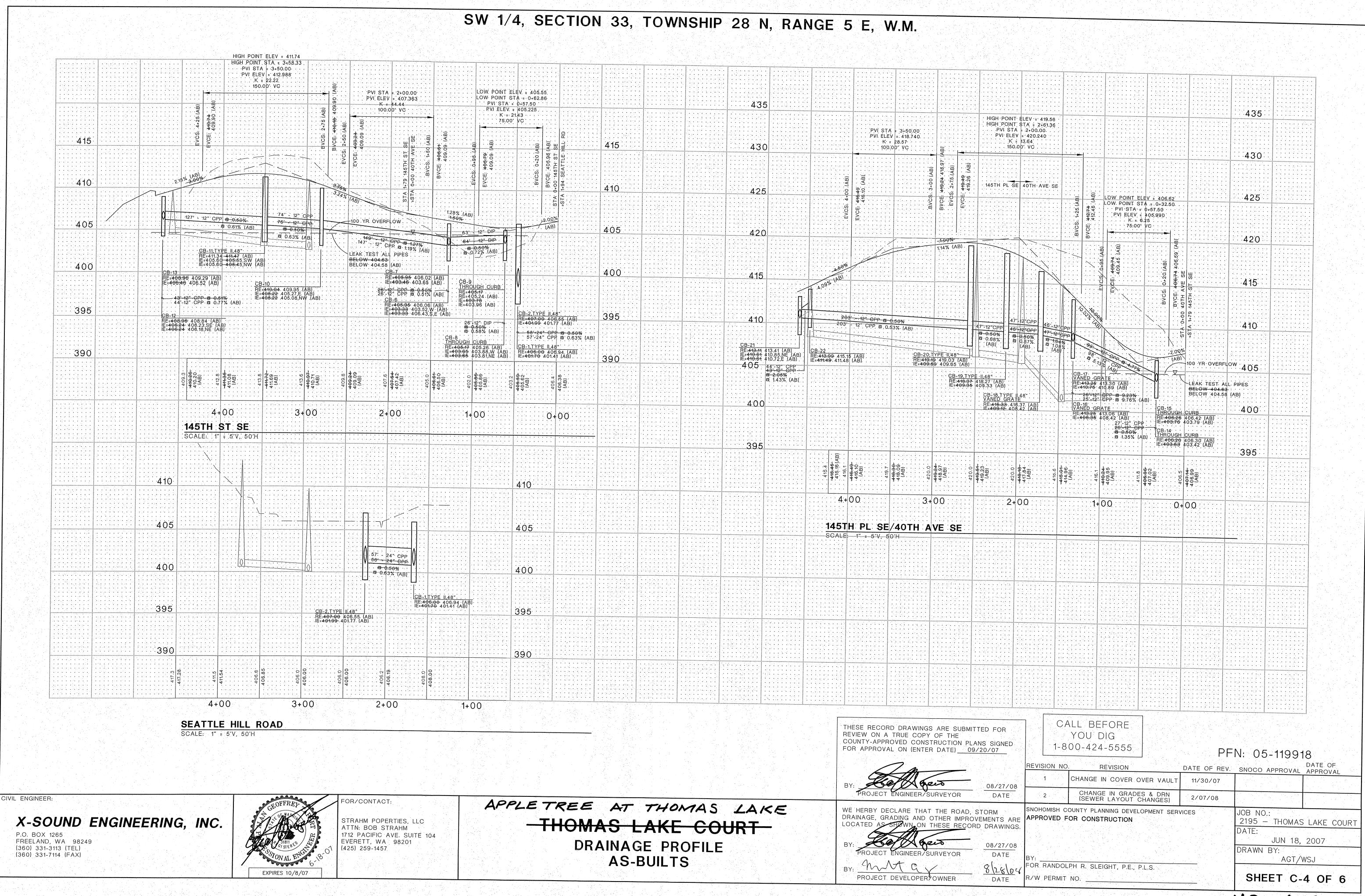
APPLETREE AT THOMAS LAKE

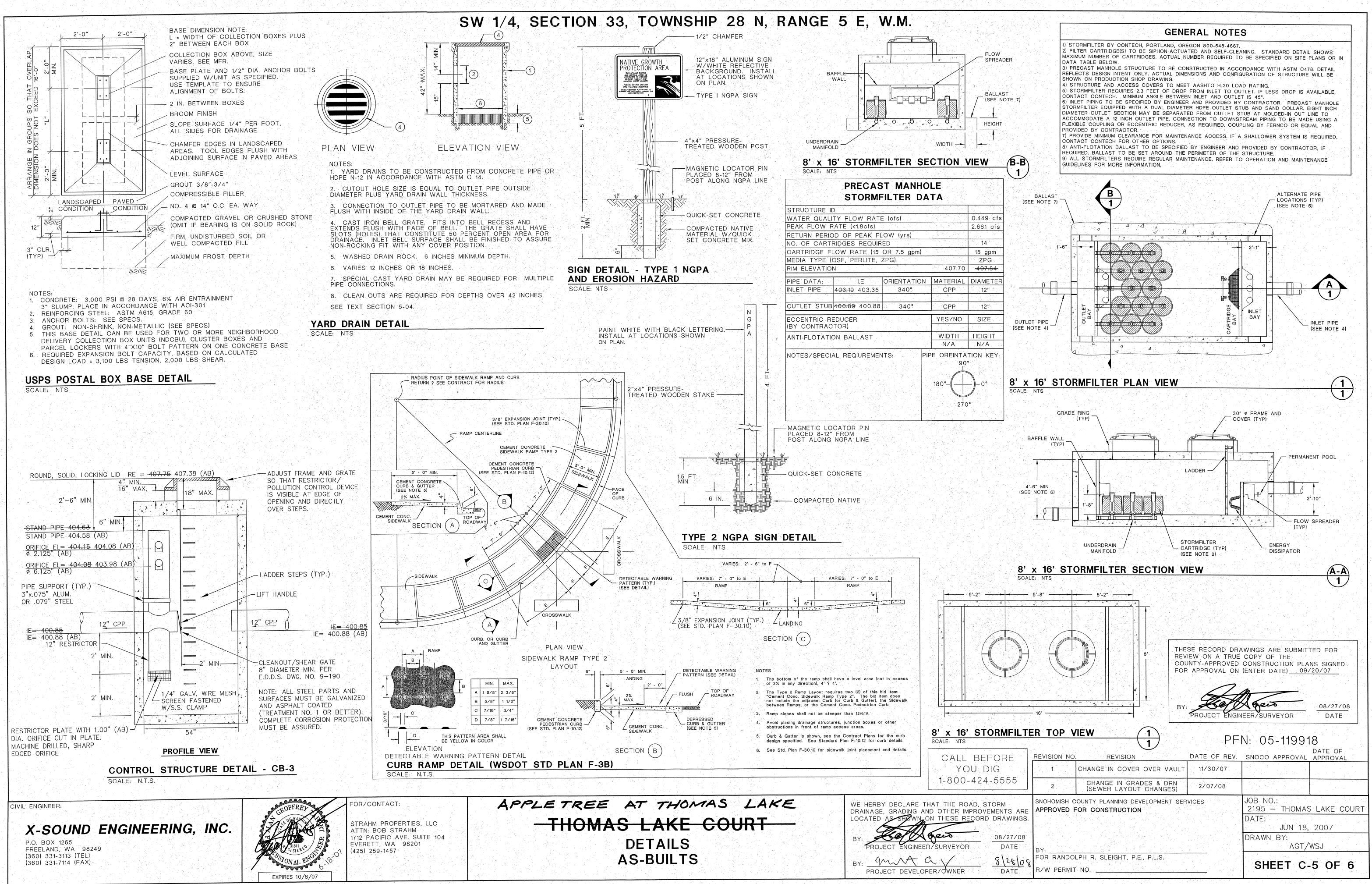


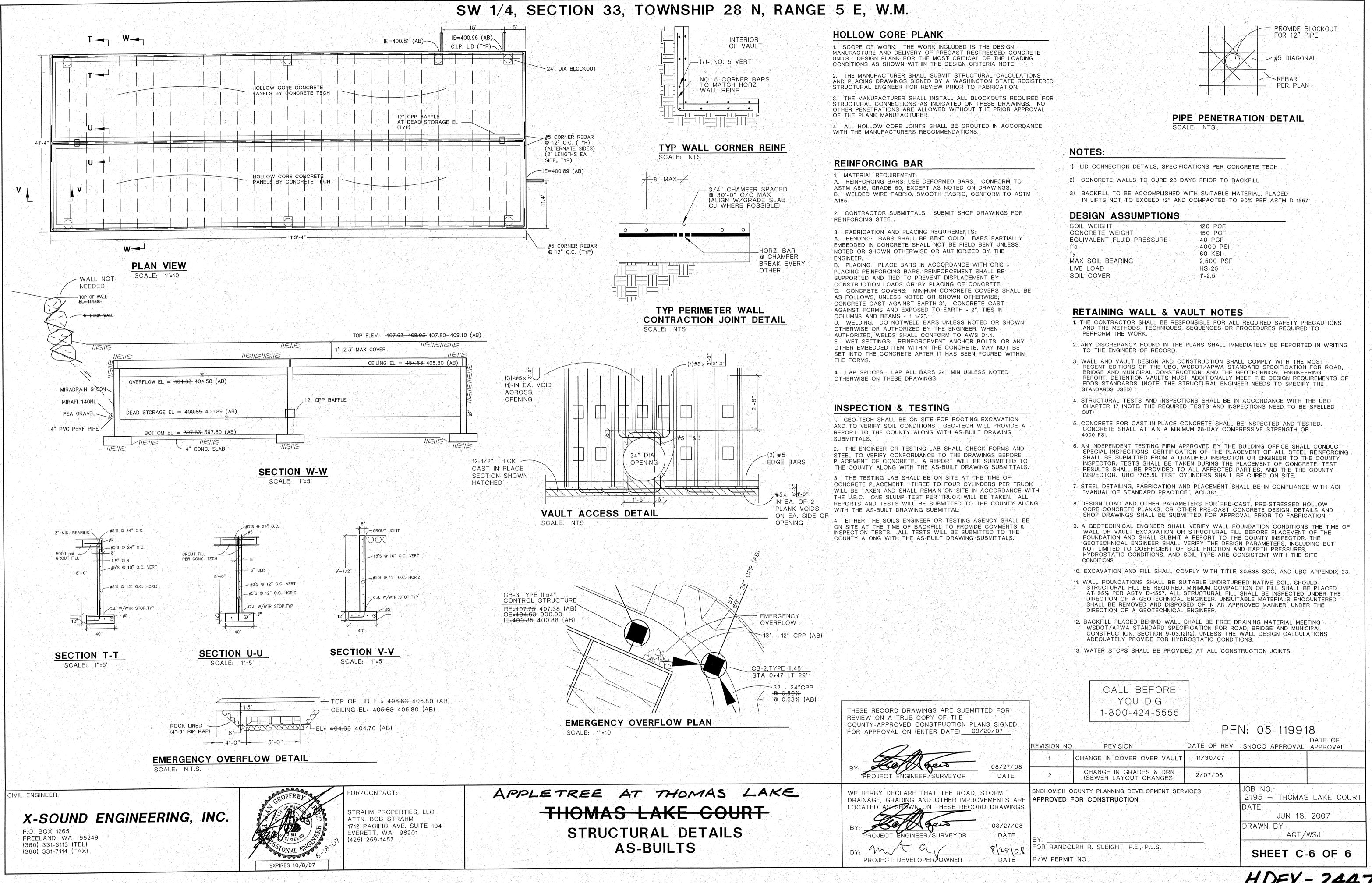
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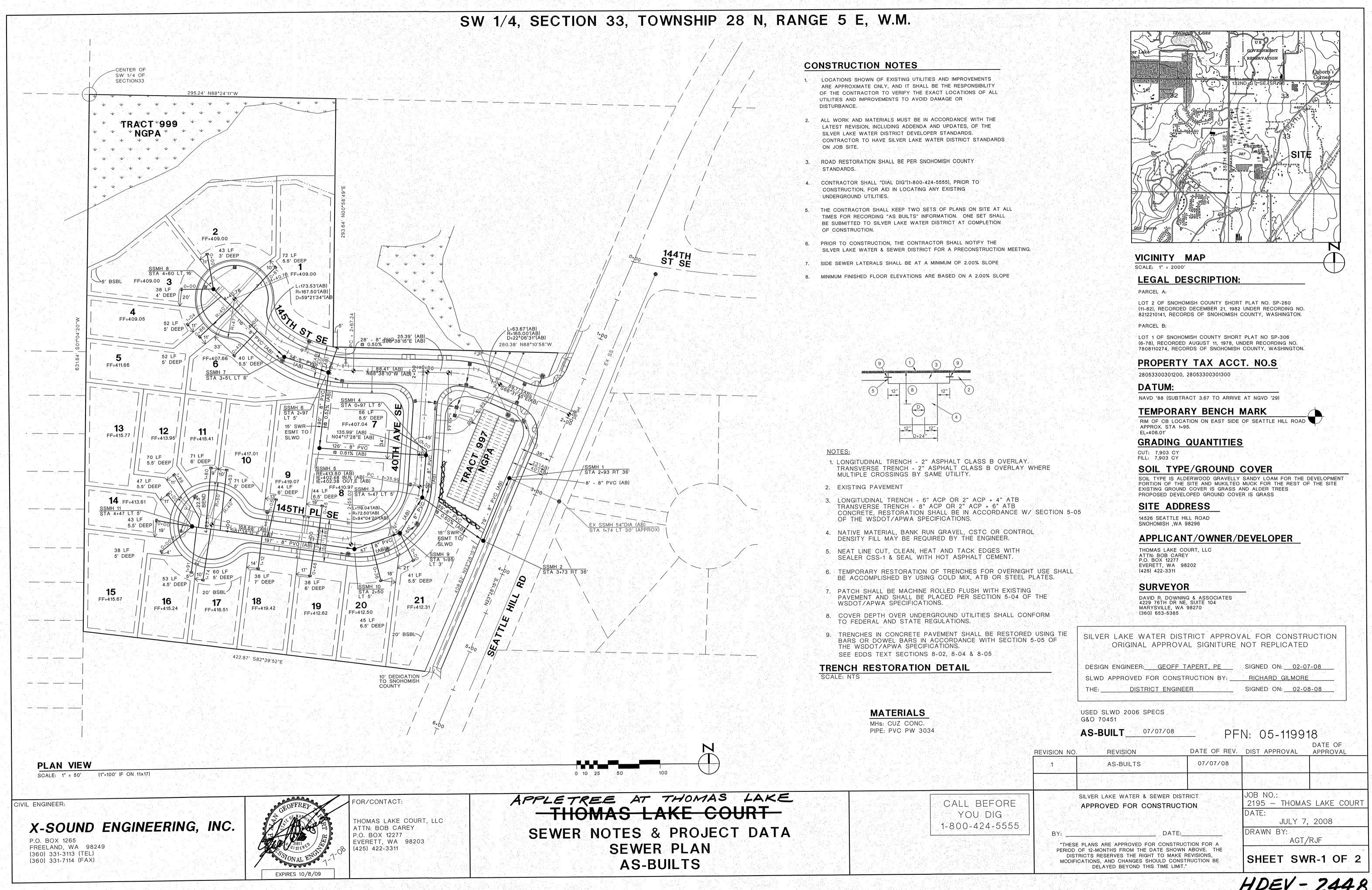


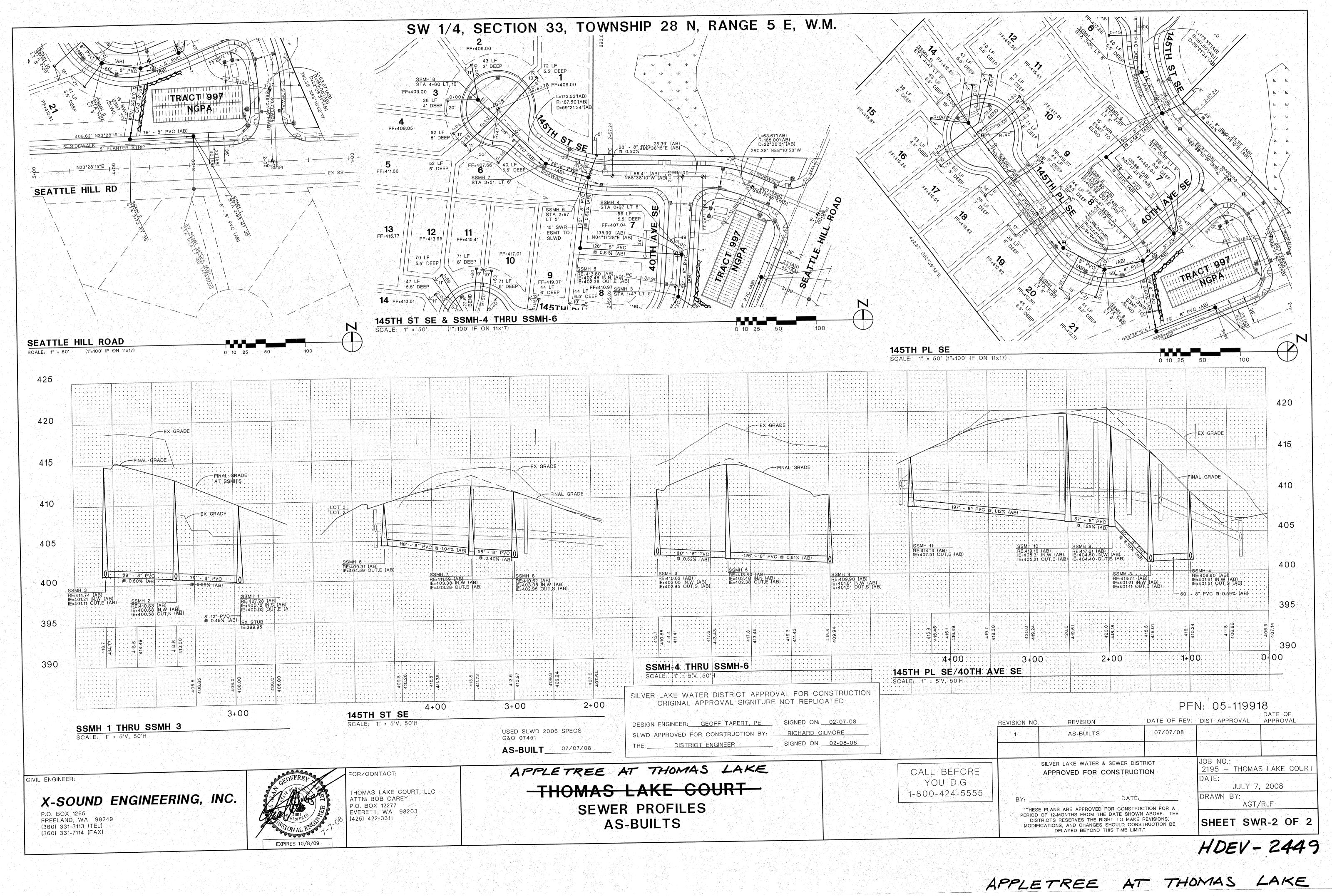
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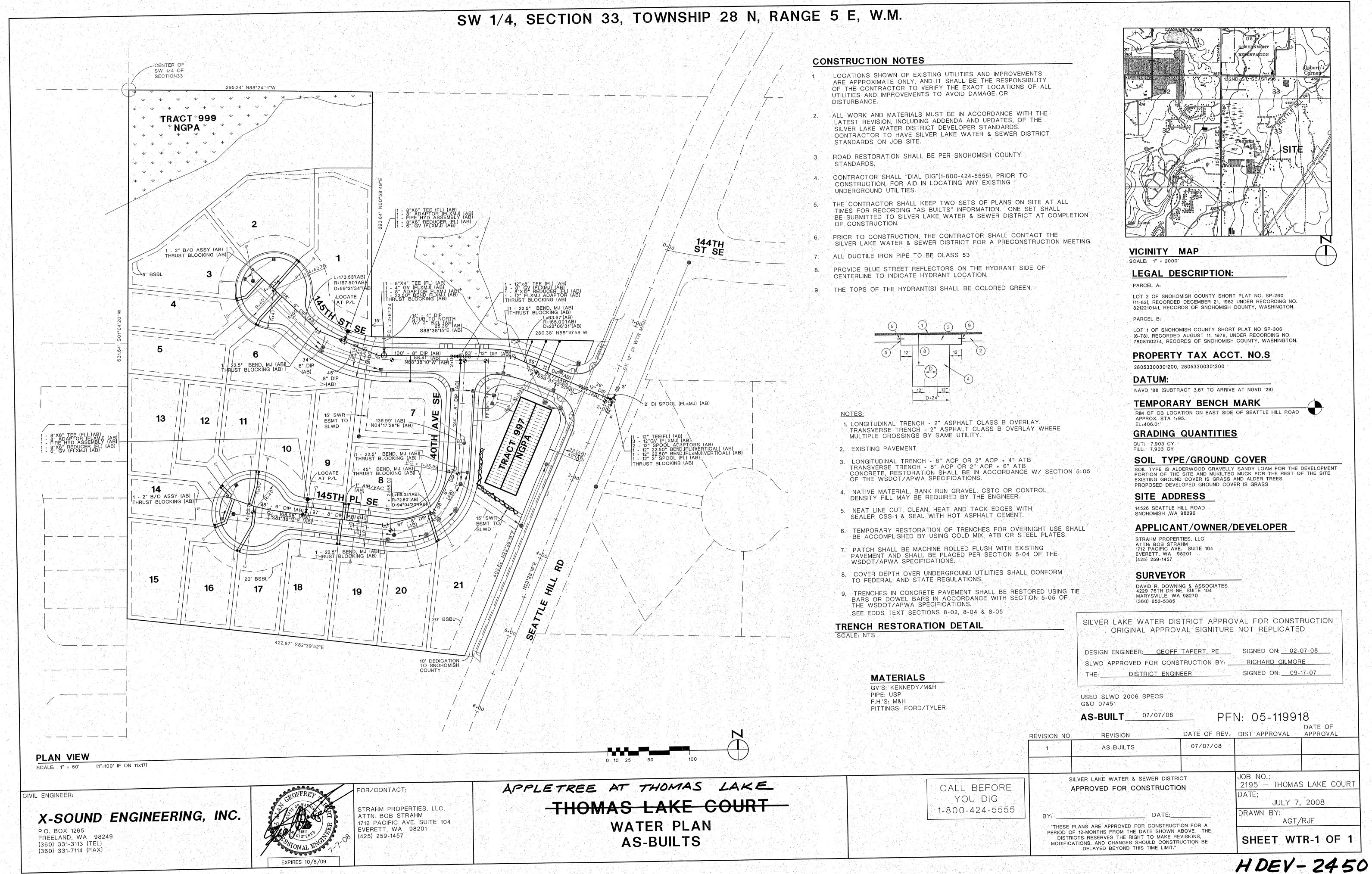












FINAL WETLAND MITIGATION PLAN THOMAS LAKE COURT

BUFFER AVERAGING AND MITIGATION PLAN

through averaging and through enhancement.

percent of the standard width.

proportionate reduction.

OFF-SITE WETLAND BUFFER MITIGATION

BUFFER AVERAGING

A PORTION OF SECTION 33, TOWNSHIP 28N, RANGE 5E, W.M.

Because of the degraded state of the on-site buffer and the potential for

to establish this area. Likewise portions of the standard buffer are also

becoming overgrown with this type of vegetation or contain native pioneer

areas present an ideal opportunity for enhancement. Enhancement would

enhancement areas. The proposed enhancement would benefit the site in

that it will assist and speed the transition of the buffer to a climax conifer

forest with greater structural diversity. The applicant is proposing reduction

The applicant is proposing buffer averaging to reduce portions of the buffer

that are in a degraded state. Additional buffer is offered at a 1:1 addition to

reduction ratio. The area chosen to give back buffer is primarily vegetated

is of similar quality that is "given". However, the applicant is proposing to

with pasture grasses and Scot's broom, therefore the quality of buffer "taken"

enhance the portion of buffer acided thus providing an overall increase in the

quality of the averaged buffer. This buffer averaging plan is allowed under

SCC 30.62.650 because there will be no loss of wetland functions and values,

The applicant is further proposing reduction with an enhancement credit.

Pursuant to SCC 32.10.570.1.c.ii and Snohomish County Administrative Rule

"Buffer Enhancement Reductions" this reduction is allowed because the buffer

will have minimal functional value, the proposed enhancement and reduction

buffer width shall not be less than fifty percent of the standard width and the

will result in an increase in the functional value of the buffer, the resulting

functional value of the wetland that the buffer is protecting shall not

enhancement, a proportionate reduction credit was determined. The

reduction credit is based upon the ratio of standard buffer to amount of

buffer and a total of 25,113 square feet of standard buffer on-site. The

applicant is proposing to reduce approximately 4,441 square feet of the

standard buffer, not less than fifty percent of the original width. This

reduction should be acceptable as it falls below the threshold of the

enhancement proposed. The reduction credit of 19 percent will allow 4,771

The applicant proposes buffer width averaging at an approximate 1:1 addition

to reduction ratio, as allowed under SCC 30.62.350. A total of 831 square feet

buffer is proposed to be added for a total of 831 square feet of buffer proposed

to be reduced. The area designated for reduction is comprised of disturbed

pasture. The area designated as additional buffer shall be enhanced with

native vegetation, as proposed in the Buffer Enhancement plan described

above. Based on the existing buffer vegetation on this site, no loss of buffer

As mitigation for impacts to the isolated portion of buffer extending onto the

subject property, the applicant is proposing to designate the area within the

stormwater vault will be capped, grass seeded and planted with native shrubs.

increase total buffer area as well as restore vegetative structure and diversity,

which in turn will increase the low level of functions and values this portion of

isolated from the wetland, however functional value is commensurate with the

Following the installation and capping of the stormwater vault, the entire area

(10,810 square feet) will be planted with native shrubs and then grass seeded.

Plant spacing and quantity will be based upon 100 percent of the areas being

achieve the desired natural asymmetric patterns found in nature. Mulch as

specified in this plan, shall be applied to all plantings. Upon completion of

seed mixture in this plan and then covered with straw. The applicant is

proposed distribution of native plants for this enhancement plan follows:

Oemleria cerasiformis 1 gal.

Symphoricarpos abus 1 gal.

Gaultheria shallon 1 gal.

Lonicera involucrata 1 gal.

Any disturbed soil in buffers shall be seeded to the recommended grass seed

used if absolutely necessary due to potential runoff into adjacent waters. If

deemed absolutely necessary by the consulting biologist and/or the County

biologist an appropriate fertilizer will be recommended for the particular

Festuca arundinacea 0.4

Lolium multiflorum 0.5

Trifolium repens 0.2

concentration shall be approved by a County biologist. Fertilizer shall only be

mixture below, or similar approved mixtures. Any change in species or

1 gal.

LBS/1,000 S.F.

proposing to plant a total of 430 plants in the enhancement area. The

Buffer Enhancement- off-site wetland (10,810 square feet)

Cornus sericea

LATIN NAME

Agrostis tenuis

LATIN NAME

COMMON NAME

Black twinberry

COMMON NAME

Annual ryegrass

Colonial bentgrass

Tall fescue

Red clover

Red osier dogwood

Oso-berry

Snowberry

plantings, all bare ground areas shall begrass seeded using the recommended

planted with shrubs on 5-foot centers. Plants should be arranged randomly to

High quality topsoil should be used to cap the vault for planting purposes.

the buffer is providing to the wetland. The enhanced buffer area will remain

Approximately 7,353 square feet of buffer will be impacted as a result of

access road improvements. To ensure no net loss of buffer functions and

values, the applicant is proposing to enhance 10,810 square feet of buffer

located within the applicant's stormwater tract. This enhancement will

wetland it is meant to protect and will be increased overall.

stormwater tract as additional buffer to be enhanced. The proposed

functions and values is anticipated as a result of this buffer averaging plan.

square feet of reduction based upon the enhancement of 14,140 square feet of

decrease. Because the entire buffer is not in demonstrated need of

no loss of buffer area and the resulting buffer width shall not be less than fifty

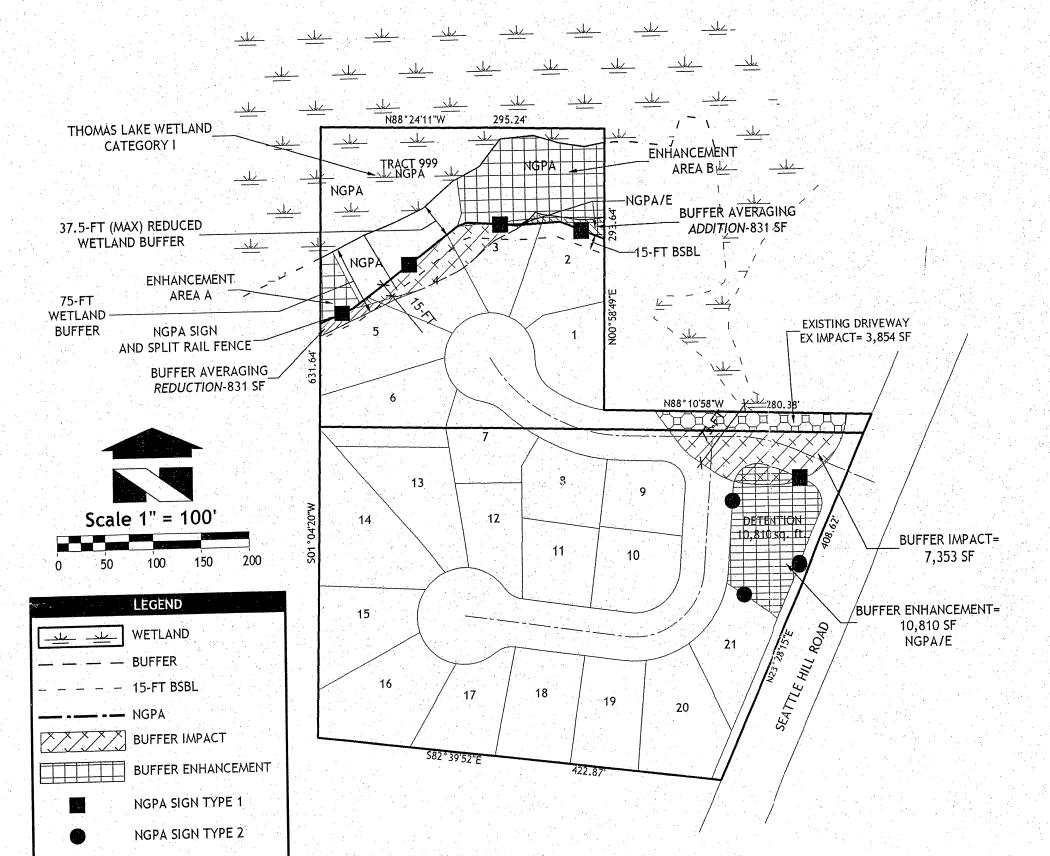
involve the planting of a variety of conifer and shrub species within the

enhancement, the applicant is proposing to reduce portions of the standard

buffer width to a minimum of 37.5 feet. The buffer proposed for reduction is

currently comprised of unmanaged pasture and invasive species are beginning

species such as red alder and black cottonwood, which are short lived. These



VICINITY MAP

On March 10, 2005 Wetland Resources, Inc. conducted a wetland delineation on the 5.5-acre site located at 14430 and 14526 Seattle Hill Road. The site is further located as a part of Section 33, Township 28N, Range 5E, W.M., in urban Snohomish County, Washington.

The site is comprised of two parcels, the northern parcel is generally square in shape with a "panhandle" from the southeast corner to Seattle Hill Road and the southern parcel is generally rectangular in shape. This site is accessed from the east via Seattle Hill Road. To the north and east of the subject property is the Thomas Lake wetland system. A portion of the southern boundary of this large Category 1 wetland is located on-site, along the northern boundary of the property. The wetland and portions of the buffer are the only forested areas on the site, however portions of the wetland and buffer are dominated by monotypic community of hardhack with minor amounts of salmonberry and evergreen blackberry present. The remainder of the subject property is currently disturbed pasture and is vegetated with typical pasture grasses and invasive/exotic species including reed canarygrass, hardhack and Scot's broom. Surrounding land use to the south and east is comprised of single-family residences. Category 1 wetlands in urban Snohomish County typically receive 75' protective buffers.

OFF-SITE WETLAND BUFFER DISCUSSION

A portion of the Thomas Lake wetland system extends south onto an adjacent property, east of the subject property. This highly degraded "finger" is located within actively used horse pasture and the condition of the wetland is very poor. In respect to functional value it is likely that this portion of the wetland has a negative effect on functions and values especially in regards to water quality. This portion of the wetland appears to terminate prior to extending onto the subject property. Data was collected on-site in the area where the wetland has the potential to extend onto the subject property. No positive wetland field indicators were present at the time of investigation in March of 2005 (see attached field data sheet and map). Additionally, the boundary of the off-site wetland area has been confirmed by PDS personnel.

While the wetland does not extend onto the subject property, the buffer does. The portion of on-site buffer is comprised of pasture and is isolated from the wetland by the existing gravel access road from Seattle Hill Road. The applicant is proposing to improve the existing gravel road for access to the development. This portion of the buffer is comprised of pasture and is providing little functional value to the off-site wetland area. In order to provide access to the development, the applicant is proposing to improve existing access resulting in impacts to approximately 7,353 square feet of isolated buffer. To ensure no net loss of buffer functions and values the applicant is proposing to enhance approximately 10,810 square feet of additional buffer to be located south of the improved access road. The additional buffer area will be located within the applicant's detention facility tract. A stormwater vault is proposed for this area and the applicant is proposing to cap the vault and plant native shrubs to replace the impacted buffer area.

No net loss of functions and values is likely as the area of enhancement is similar to current conditions of the buffer. It will still be isolated, but buffer square footage will be increased and vegetative diversity and structure will be vastly increased by planting native shrubs. Even more the wetland area it is meant to protect is of such low quality, buffer functions will be commensurate with the functional value of the finger off-site wetland. As such this proposed mitigation should more than offset impacts to functions and values of the wetland buffer.

PROPOSID DEVELOPMENT, BUFFER AVERAGING & BUFFER REDUCTION The applicant is proposing to develop a 21-lot residential subdivision and related infrastructure on this property. To accommodate portions of this development the applicant is proposing to reduce portions of the buffer down to a minimum of 37.5 feet in places. Buffer averaging is proposed for a portion of the reduction with the remainder to be reduced with enhancement. The applicant is proposing to reduce that portion of buffer, which is currently comprised primarily of pasture grasses, and/or being overgrown by aggressive, weedy species. This reduction is not less than 50 percent of the standard buffer width and the remaining buffer area is greater than 75 percent of the area before reduction. Much of the remainder of the buffer is primarily dominated by hardhack and evergreen blackberry. While the applicant is proposing to reduce the buffer the proposed enhancement of the remaining buffer will greatly improve its buffering capacity and provide greater protection to the valuable Thomas Lake Wetland system. Mitigation for these impacts is proposed through buffer addition, buffer enhancement as well as placement of a two-rail fence. In Snohomish County buffer widths may be reduced pursuant to SCC

Buffer averaging is proposed to reduce approximately 831 square feet of degraded buffer. Additional buffer is proposed at the 1:1 required ratio. The additional buffer proposed is located between the "development" and the critical area that is being buffered. This buffer averaging plan is allowed under SCC 30.62.350 because there will be no loss of wetland functions and values, no loss of buffer area and the resulting buffer width shall not be less than 50 percent of the standard width.

The applicant is proposing to further reduce the degraded buffer with enhancement. Portions of the on-site buffer are comprised of short lived and/or weedy species and the potential for enhancement of this area is great. Approximately 14,140 square feet of buffer after averaging will benefit from enhancement. This amount of enhancement allows a proportionate reduction of 19%, which is equates to 4,771 square feet. The buffer enhancement proposed by the applicant will result in a net improvement in the functions and values of the wetland and buffer.

As mitigation for the 4,441 square feet of buffer reduction, the applicant is proposing buffer enhancement at greater than 3:1 (buffer enhancement to buffer reduction) ratio. This will provide 14,140 square feet of enhanced buffer. In addition, the applicant is proposing to place a two-rail fence along the entire perimeter of the buffer to demarcate critical areas and prevent intrusion and disturbance to the wetland and buffer.

Proposed buffer enhancement shall consist of removing all weedy species by hand and planting native trees and shrubs. The implementation of this mitigation/enhancement plan will improve the overall functions and values over those currently provided by this wetland buffer.

USE OF THIS PLAN

This Final Wetland Mitigation Plan is supplied to Strahm Properties, LLC as a means of determining on-site wetland conditions and mitigating for critical area impacts, as required by Snohomish County during the permitting process. This report is based largely on readily observable conditions and, to a lesser extent, on readily ascertainable conditions. No attempt has been made to determine hidden or

The laws applicable to wetlands are subject to varying interpretations and may be changed at any time by the courts or legislative bodies. This report is intended to provide information deemed relevant in the applicant's attempt to comply with the laws now in effect.

The work for this report has conformed to the standard of care employed by wetland ecologists. No other representation or warranty is made concerning the work or this report and any implied representation or warranty is disclaimed.

BUFFER ENHANCEMENT

As mitigation for the 4,441 square feet of permanent buffer impact resulting from the proposed buffer reduction, the applicant is proposing to enhance the 14,140 square feet of buffer located in the western and eastern on-site portion of the property. There are two buffer areas proposed for enhancement but methods for enhancement will be the same for both. Enhancement Area A is located in the western portion of the buffer while Enhancement Area B is located in the eastern portion of the buffer. Planting lists will be shown in two tables in order to properly distribute species and quantities in the proper areas. Any bare ground areas within the enhancement area shall be seeded with the grass seed mixture recommended in this plan. This enhancement should aid in the transformation of the buffer area to a climax conifer forest, increasing vegetative and structural diversity thereby improving the buffer functions related to the wetland and providing higher quality habitat for

Buffer Enhancement Areas A and B (14,140 square feet) The two areas the applicant is proposing to enhance are located on either end of the on-site buffer. These areas are represented by a minor canopy of immature red alder and black cottonwood with some willow species. The understory of these areas is dominated by hardhack, Himalayan and evergreen blackberry. Due to overgrowth of these invasive species the applicant is proposing to plant native trees and shrubs throughout the enhancement areas. Prior to planting all hardhack and any other invasive species throughout the enhancement area shall be removed by the roots and transported off-site. Any trees (including willows) in these areas should be left as undisturbed as possible. Plant spacing and quantity shall be based upon 100 percent of the areas being planted with 50 percent trees on 10-foot centers and 50 percent shrubs planted on 5-foot centers. Plants should be arranged randomly to achieve the desired natural asymmetric patterns found in nature. Mulch as specified in this plan, shall be applied to all plantings. Upon completion of plantings, all bare ground areas shall be grass seeded using the recommended seed mixture in this plan and then covered with straw. The applicant is proposing to plant a total of 72, (10 & 62) trees and 285, (40 & 245) shrubs within the enhancement areas. The proposed distribution of native plants for this buffer enhancement plan follows:

COMMON NAME	LATIN NAME	SIZE	SPACING	QUANTIT
Western red cedar	Thuja plicata	1 gal.	10'	4
Douglas-fir	Pseudotsuga menziesii	1 gal.	10'	3
Western hemlock	Tsuga heterophylla	1 gal.	10'	3.
Oso-berry	Oemleria cerasiformis	1 gal.	5'	6
Snowberry	Symphoricarpos albus	1 gal.	5'	6
Red elderberry	Sambucus racemosa	1 gal.	5'	6
Salal	Gaultheria shallon	1 gal.	5'	6
Oregon grape	Mahonia nervosa	1 gal.	5'	6
Black twinberry	Lonicera involucrata	1 gal.	5'	5
Red osier dogwood	Cornus sericea	1 gal.	5'	5

Buffer Enhancement	Area B (12,236 square feet)	
COMMON NAME	LATIN NAME SIZE SPACING	QUANT
Western red cedar	Thuja plicata 1 gal. 10'	16 .
Douglas-fir	Pseudotsuga menziesii 1 gal. 10'	16
Western hemlock	Tsuga heterophylla 1 gal. 10'	15
Big-leaf maple	Acer macrophyllum 1 gal. 10'	15
Oso-berry	Oemleria cerasiformis 1 gal. 5'	35
Snowberry	Symphoricarpos albus 1 gal. 5'	35
Red elderberry	Sambucus racemosa 1 gal. 5'	35
Salal	Gaultheria shallon 1 gal. 5'	35
Oregon grape	Mahonia nervosa 1 gal. 5'	35
Black twinberry	Lonicera involucrata 1 gal. 5'	35
Red osier dogwood	Cornus sericea 1 gal. 5'	35
		,

PROJECT NOTES

QUANTITY

<u>SPACING</u>

A meeting shall take place between the consulting biologist and the contracted landscaper prior the commencement of enhancement activities. This will provide an opportunity to clarify any questions that may arise and ensure success of the project in a timely manner.

Removal of invasive species shall be done with hand held tools where feasible to avoid damaging existing native vegetation. All trees including willows should be retained.

Planting should take place in the early spring or late fall. Order plants from a reputable nursery. Care and handling of plant materials is extremely important to the overall success of the project. All plant materials recommended in this plan should be available from local and regional sources, depending on seasonal demand. Some limited species substitution may be allowed, only with the agreement of the consulting wetland professional or the County biologist. Planting will take place immediately upon completion of the excavation to prevent unnecessary erosion.

Following the grading of any area, a minimum of six inches of high quality topsoil shall be spread over any bare areas prior to planting.

Lath staking or bright ribbon flagging shall be used to mark the planted species to assist in locating them while removing competing vegetation and to assist in monitoring the plantings. It is not necessary to mark each herbaceous plant, but each planted tree and shrub shall be marked for easy identification.

The plants shall be arranged in a rough pattern with the appropriate numbers, sizes, species, and distribution to achieve the desired vegetation coverage. The actual placement of individual plants shall mimic natural, asymmetric vegetation patterns found in similar ecotypes in the area.

Arborists green mulch, compost, or wood chips shall be used for mulching in the planting areas. Any existing vegetation is to be removed from a two-foot diameter area at each planting site. Mulch shall be placed in this two-foot diameter area at a depth of three to four inches. A four-inch diameter ring around the base of each plant shall be kept free of mulch.

PROJECT MONITORING PROGRAM

Requirements for monitoring project: 1. Initial compliance report

2. Semi-annual site inspections (twice yearly in the spring and fall) for three years 3. Annual reports (One report submitted in the fall of each monitored year)

The purpose for monitoring: The purpose for monitoring this wetland mitigation project shall be to evaluate the success of the mitigation. Success will be determined if monitoring shows at the end of three years that the definitions of success stated below are being met. The property owner shall grant access to the mitigation areas for inspection and maintenance to the contracted wetland specialist and the Snohomish County biologist during the period of the bond, or until the project is evaluated as successful.

<u>Initial Compliance / As-built Report</u>: Upon completion of the mitigation project, an inspection by a qualified wetland professional will be made to determine plan compliance. A compliance report ("as-built") will be supplied to Snohomish County within 30 days after the completion of planting. The report will detail the installed mitigation measures, including descriptions of any changes that were made during installation, and identify test plots and photo sites for monitoring. Test plot data and photos from the established photo sites shall be included in the compliance report, along with a copy of the approved final mitigation plan.

<u>Criteria For Success</u>: Condition monitoring of the plantings will be done by a qualified wetland professional in the spring and fall annually. A written report describing the monitoring results will be submitted to Snohomish County after the fall site inspection of each monitored year. Final inspection will occur three years after completion of this project. The consulting wetland professional will prepare a report as to the success of the project.

Definition of Success: The mitigation areas shall support at least 80 percent of the native plants set forth in the approved Final Wetland Mitigation Plan by the end of three years. The species mix should resemble that proposed in the planting plans, but strict adherence to obtaining all of the species shall not be a criteria for success. By the end of the third growing season, the percent areal coverage of native plants shall be 80 percent in the mitigation areas. No more than 10 percent coverage by non-native, invasive species shall occur within the mitigation areas at the end of the third monitored year for a successful determination.

Maintenance: This mitigation project may require periodic maintenance to replace vegetation mortality as necessary. Maintenance may include, but will not be limited to, removal of competing grasses, removal of invasive vegetation, irrigation, fertilization, replacement of plant mortality, and/or the replacement of mulch for each maintenance period. Chemical control, if necessary, shall be applied by a licensed applicator following all label instructions.

Contingency Plan: If 20 percent or more of the installed plants are severely stressed during any of the inspections, or it appears 20 percent may not survive, a contingency plan must be developed to address the reduced level of success. Elements of a contingency plan may include, but will not be limited to: more aggressive weed control, animal control, mulching, replanting with larger plant material, species substitution, fertilization, soil amendments, and/or irrigation.

PERFORMANCE BONDING

A performance bond for the planted species shall be provided to Snohomish County for the period of three years from the completion of the project, in the amount of 150 percent of the estimated cost for plant material, installation labor, monitoring and maintenance. This bond shall be released at the end of three years, upon a successful etermination by Snohomish County for all portions of this mitigation project. The definitions of success shall be as described under Project Monitoring Program in this plan. Monitoring and maintenance estimates are provided for bond calculation purposes only and are not actual bids.

Total Quantity of 1-gallon plants Estimated cost of plant material and labor (\$8.25/plant) \$6,492.75 Estimated cost of Monitoring \$1,200/year \$3,600.00 Estimated cost of maintenance \$1,500/year \$4,500.00 **Total Estimated Cost** \$14,592.75

TOTAL ESTIMATED BOND AMOUNT (150% of total estimated cost)

\$21,889.13

NGPA SIGNS

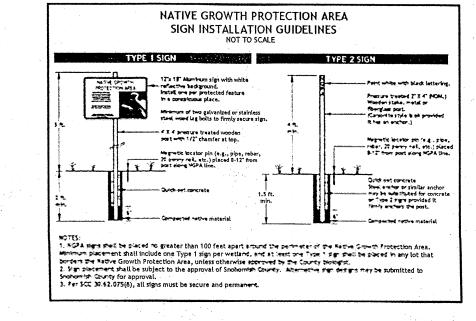
Signs designating the presence of the NGPA shall be posted along the NGPA boundary. Signs shall be placed at approximately 100-foot intervals around the perimeter of the NGPA. Minimum placement shall include one Type 1 sign per wetland, and at least one Type 1 sign shall be placed in any lot that borders the NGPA, unless otherwise approved by the County. The design and proposed locations for the NGPA signs should be submitted to the Land Use Division for review and approval. An example of Type 1 sign language is as follows:

NATIVE GROWTH PROTECTION AREA

*SEE RECORDED PLAT FOR RESTRICTIONS

THIS WETLAND AND UPLAND BUFFER ARE PROTECTED TO PROVIDE WILDLIFE HABITAT AND MAINTAIN WATER QUALITY. PLEASE DO NOT DISTURB THIS VALUABLE RESOURCE.

The signs shall be constructed of aluminum or similar durable material. They shall be secured to 4" x 4" x 7' (min.) pressure treated posts buried a minimum of two feet in quick setting concrete.



PLANNING AND DEVELOPMENT SERVICES APPROVED FOR CONSTRUCTION 07 110811

Netland Resources, Inc. Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance

9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

FINAL WETLAND MITIGATION PLAN THOMAS LAKE COURT Snohomish County, Washington

Strahm Properties, LLC Sheet 1/1 Attn: Bob Strahm WRI Job # 05051 1712 Pacific Ave, Ste. 104 Drawn by: E. Hirsch Everett, WA 98201 Date: 01.18.2007

Email: mailbox@wetlandresources.com