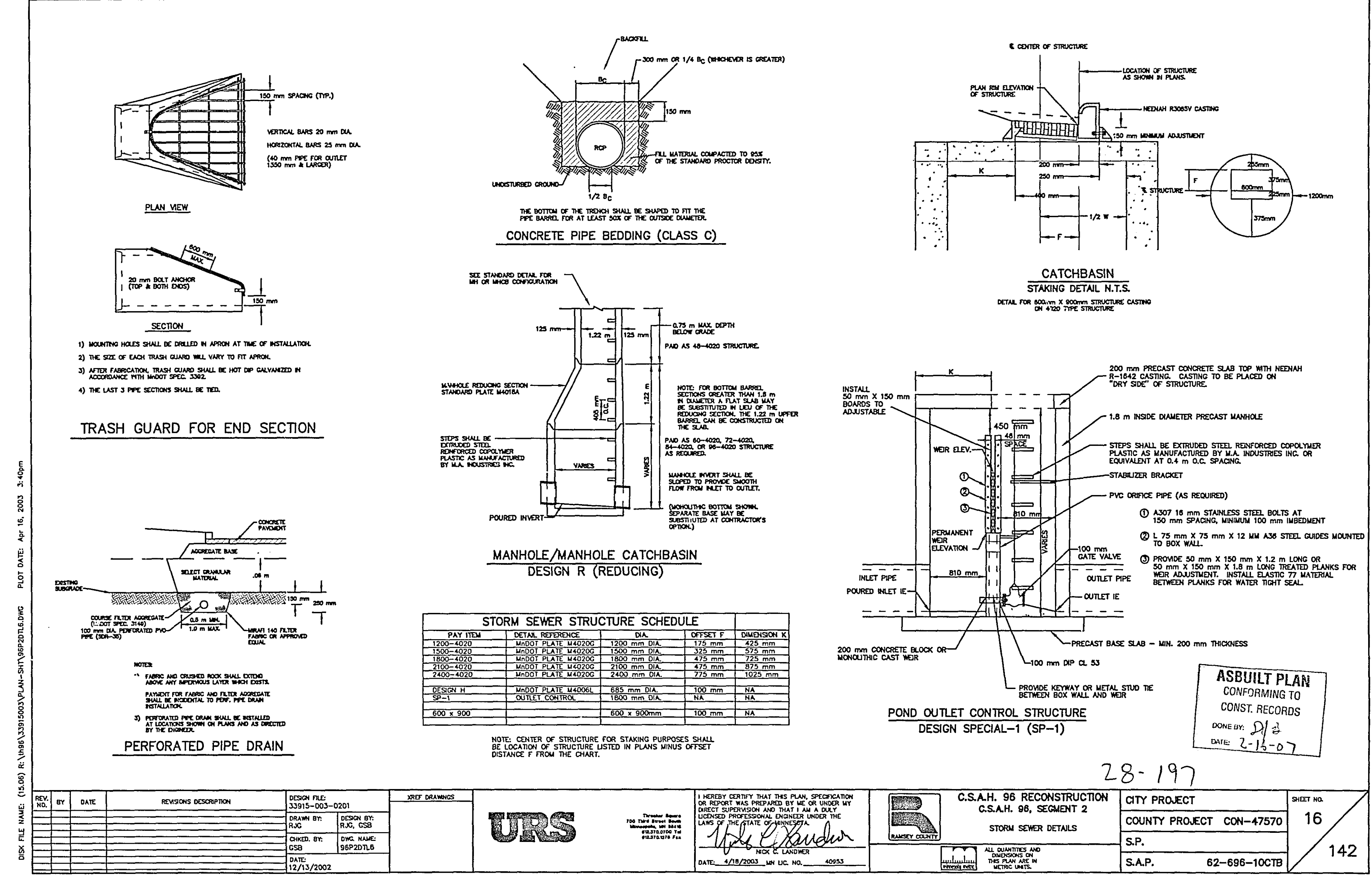
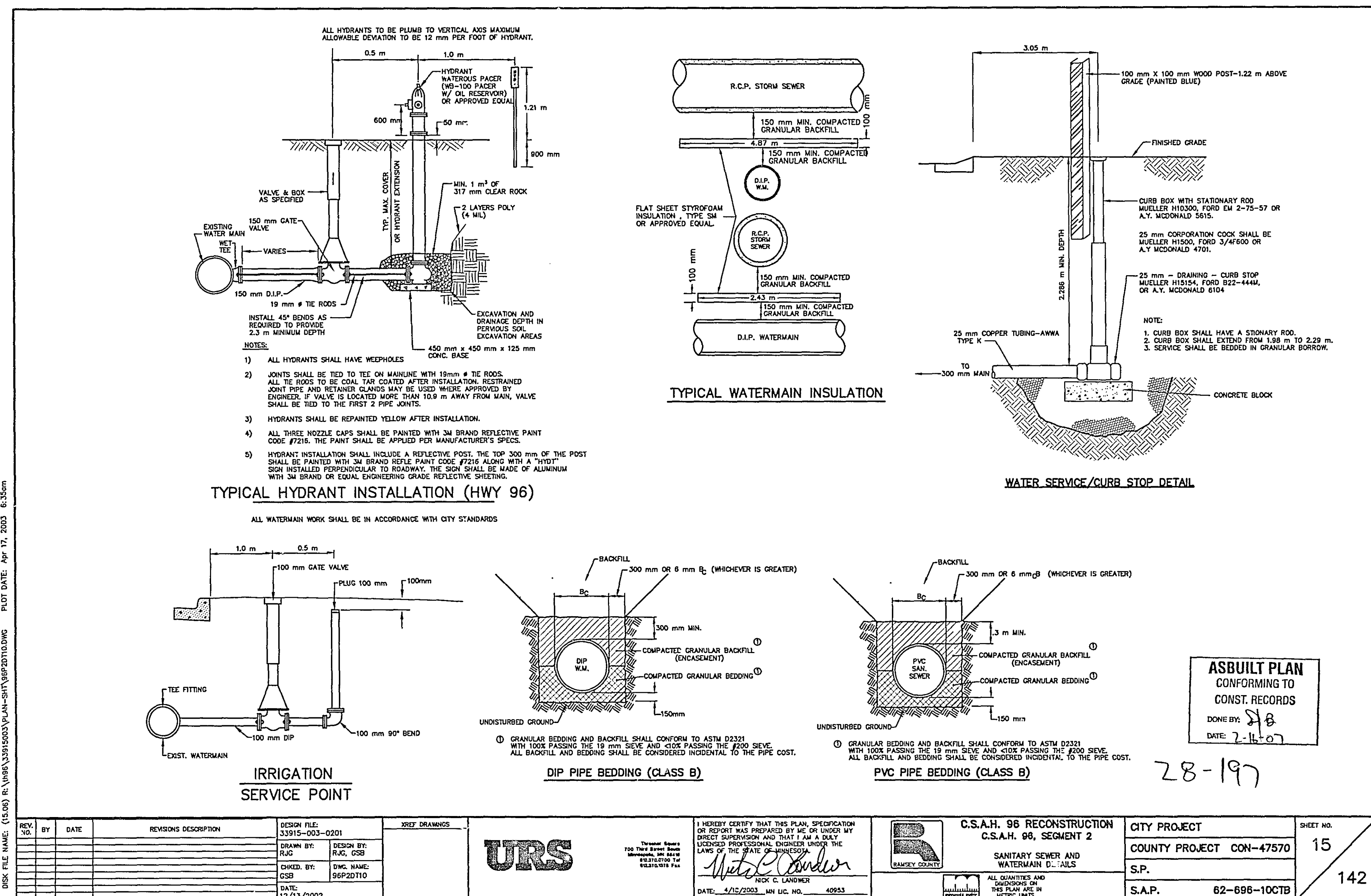
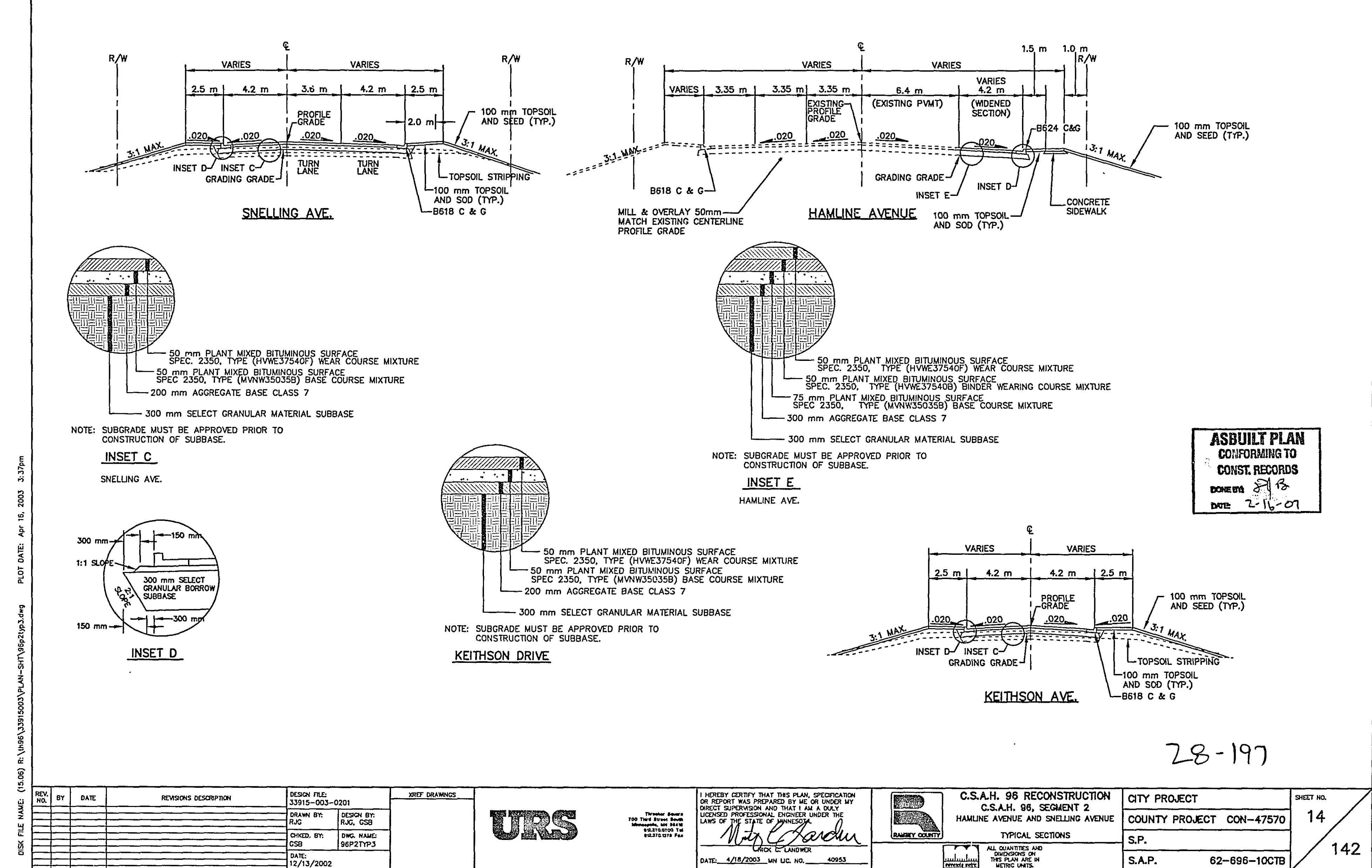
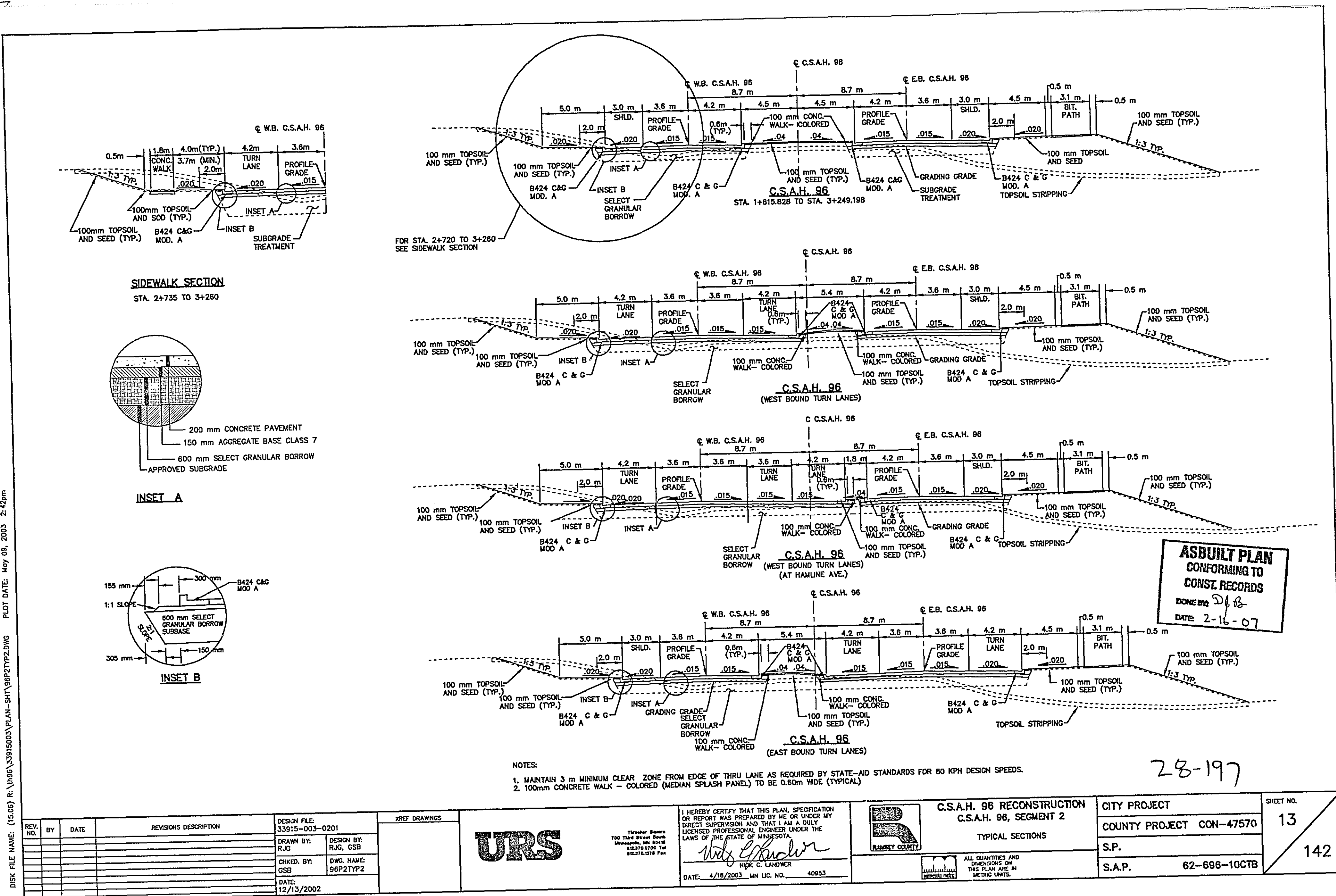


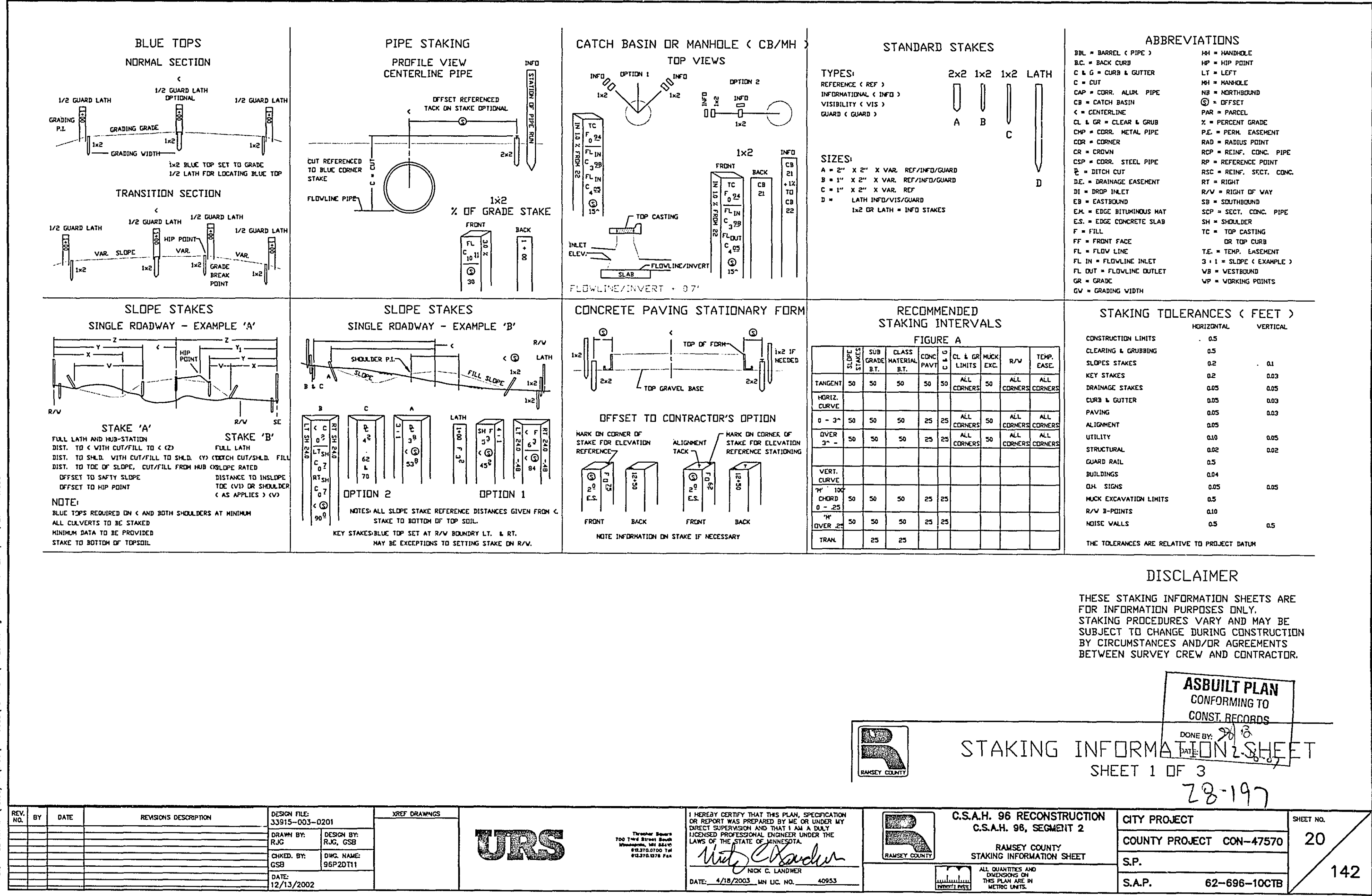
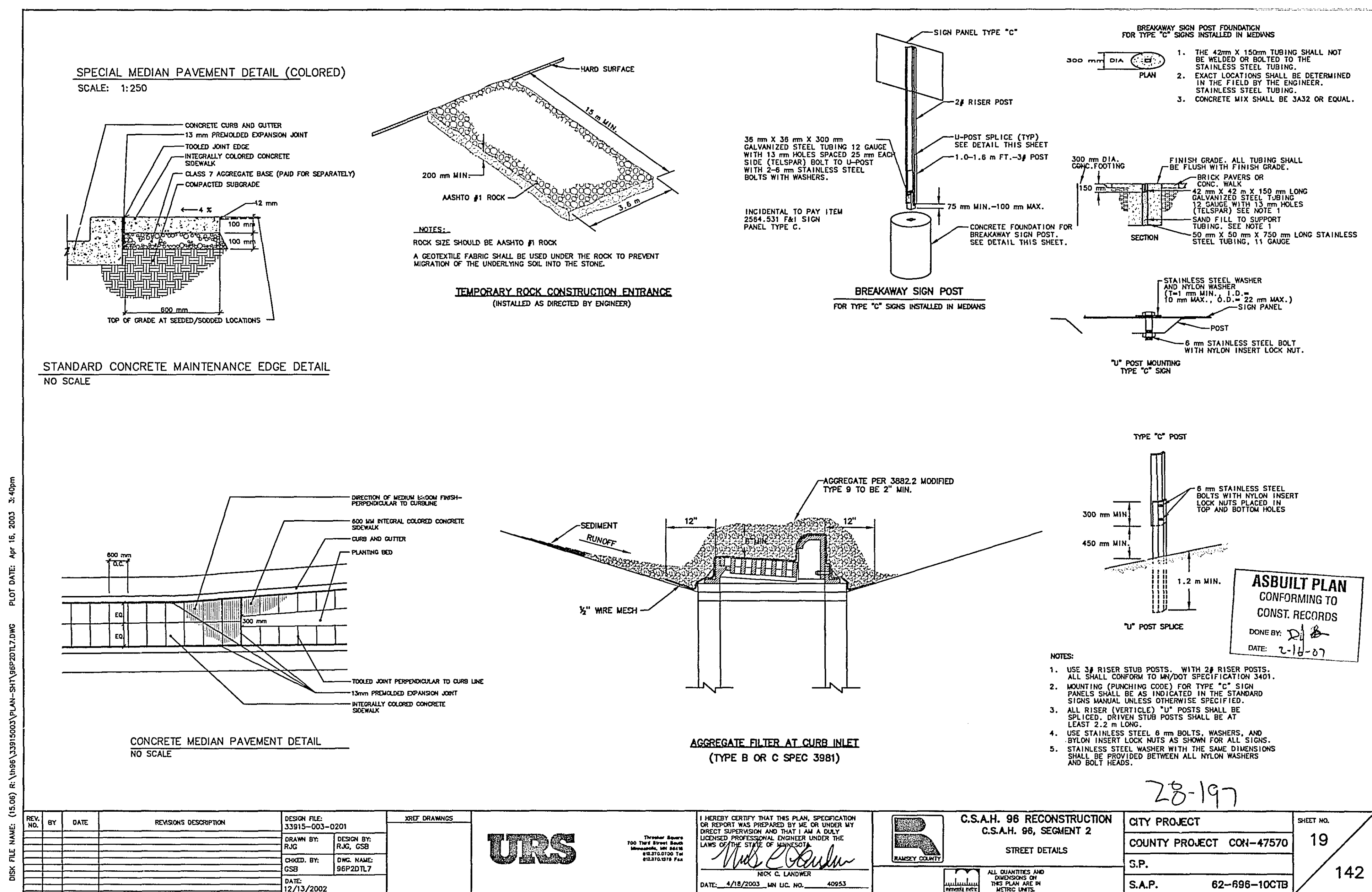
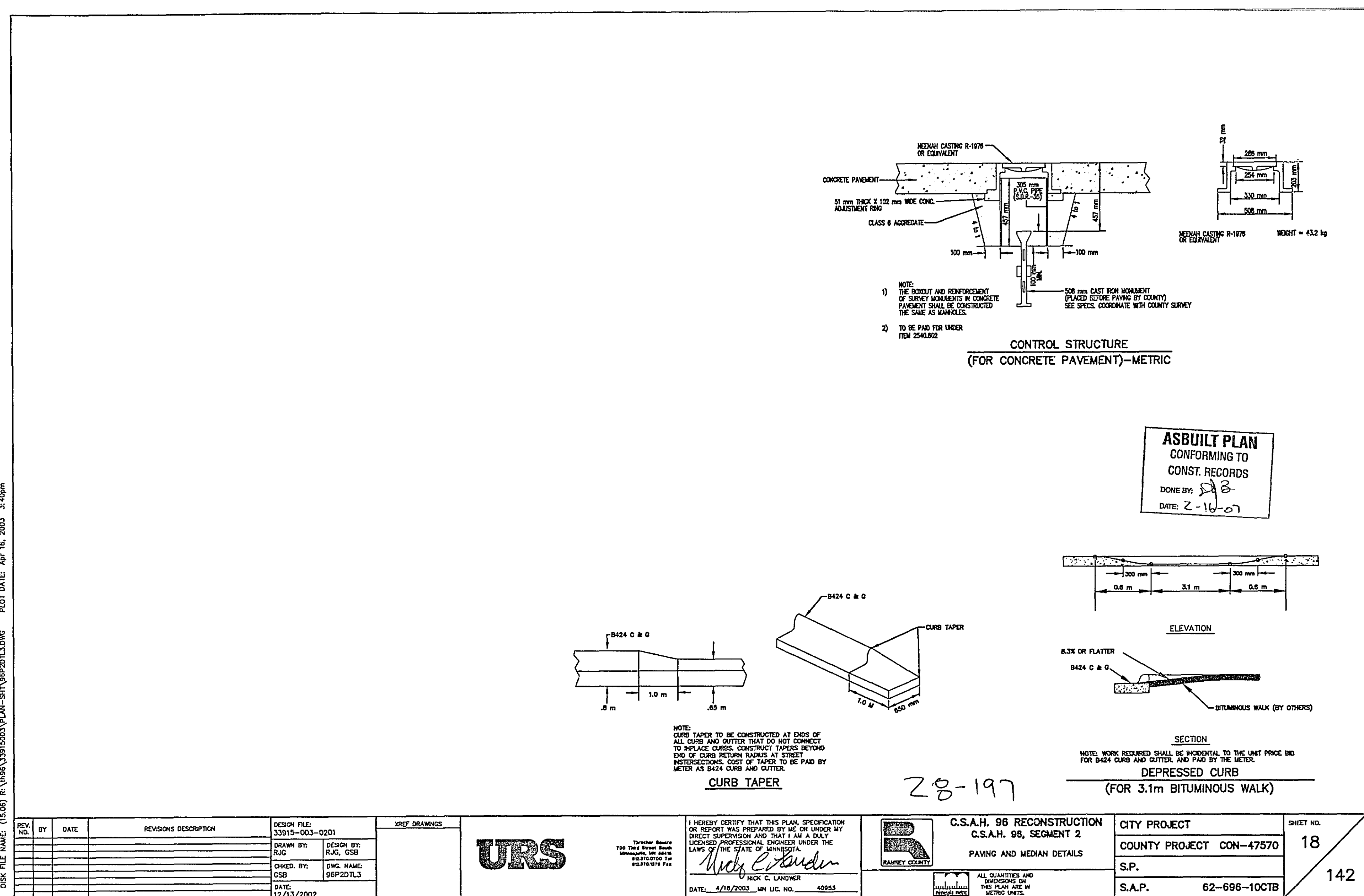
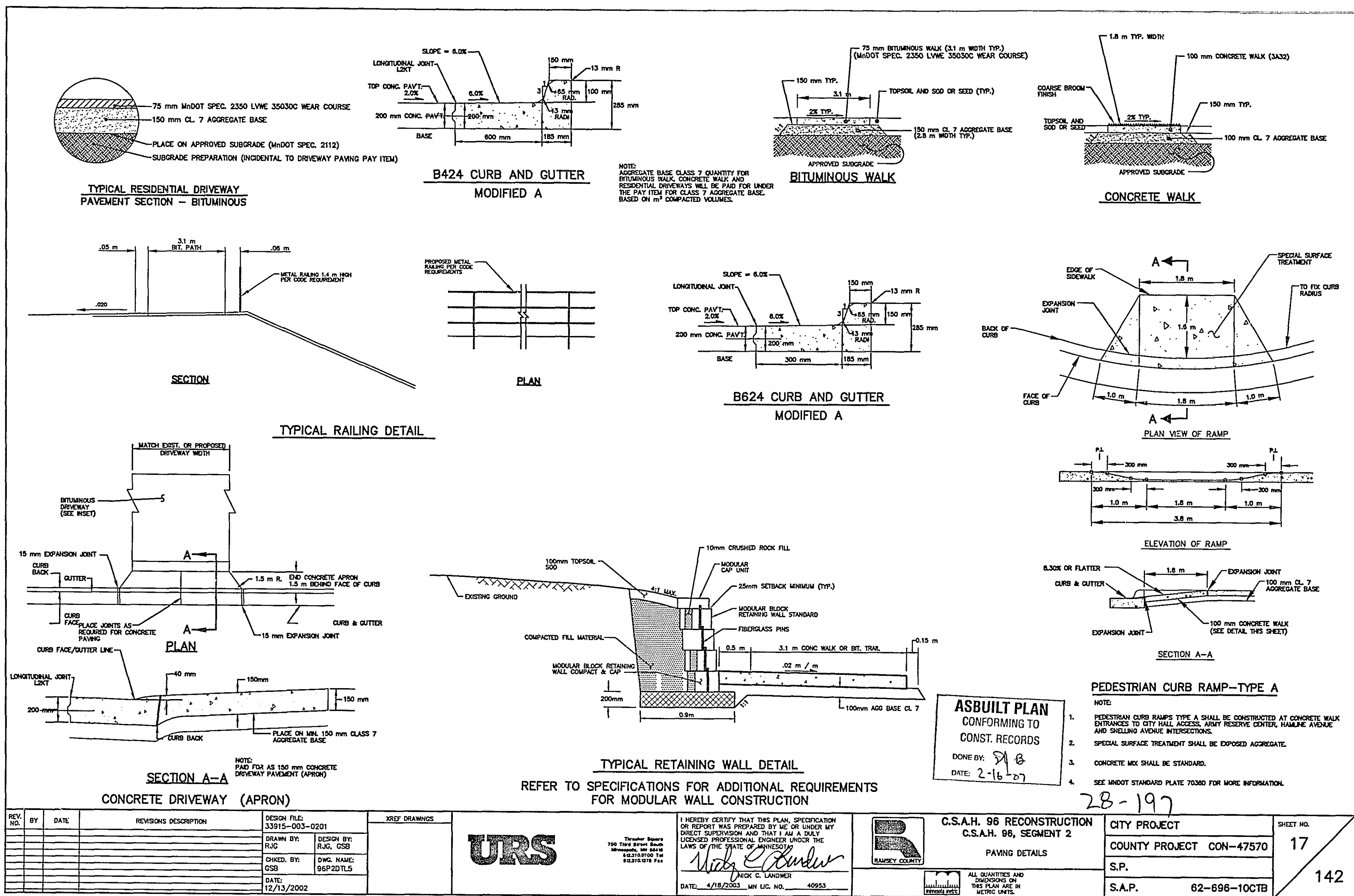
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Construction Notes: THE TOP OF THE GRADING GRADE ON THIS PROJECT IS DEFINED AS THE TOP OF SELECT GRADING MATERIAL OR THE BOTTOM OF THE AGGREGATE BASE. UNDESIRABLE GRADING MATERIALS ARE TOPSOIL, OTHER ORGANIC SOILS, SILT LOAM, SILTY CLAY LOAM, SILTY CLAY, CONCRETE, BITUMINOUS, ROCK, BRICKS AND OTHER RUBBLE. TOPSOIL SHALL BE STRIPPED FROM ALL AREAS TO BE DISTURBED BY CONSTRUCTION FOR REPLACEMENT AS SOLE DRESSING. TOPSOIL AND OTHER UNSUITABLE MATERIALS SHALL BE ELIMINATED FROM THE UPSTREAM SIDE 4 M BELOW THE GRADING GRADE. SELECT GRADING MATERIALS (CONFORMING TO SPEC 3140.20) ENCOUNTERED IN CUT AREAS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND MAY BE USED IN THE SOIL OR SUBGRADE TREATMENT AREA. PAYMENT FOR USE IN THE SUBGRADE SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR SELECT GRANULAR BORROW (GV). WATER, GAS, ELECTRIC, TELEPHONE, SEWER, AND TV CABLE LINES SHOWN ON THE DRAWINGS AND CROSS-SECTIONS ARE PLOTTED FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION, BUT MAY NOT REFLECT ACTUAL LOCATIONS OF UTILITIES. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES BEFORE BEGINNING CONSTRUCTION WHICH MAY BE AFFECTED BY A UTILITY CONFLICT. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE TO THE UTILITY OWNERS OF ALL KNOWN UTILITIES BEFORE STARTING ANY OPERATIONS AFFECTING THOSE UTILITIES. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 1507 OF THE STANDARD SPECIFICATIONS. UTILITY COMPANIES WILL RELOCATE THEIR FACILITIES CONCURRENTLY WITH THE CONSTRUCTION OPERATIONS UNDER THIS CONTRACT. THE CONTRACTOR SHALL SCHEDULE CONSTRUCTION IN COOPERATION WITH UTILITY RELOCATION. THE CONTRACTOR SHALL NOTIFY PROPERTY OWNERS 72 HOURS IN ADVANCE OF DISRUPTION TO SANITARY SEWER AND WATERMAIN SERVICES. THE CONTRACTOR SHALL MINIMIZE INTERRUPTION ON SANITARY SEWER AND WATER SERVICE TO ADJACENT PREMISES. ANY PROPERTY OUT OF SERVICE LONGER THAN 8 HOURS MUST BE PROVIDED WITH TEMPORARY SERVICE. ANY REINFORCING AND USE OF A TRENCH BOX, SHEETING, SHORING OR OTHER METHOD OR MEANS NECESSARY TO COMPLETE CONSTRUCTION WITHIN THE CONSTRUCTION LIMITS OR SLOPE EASEMENTS SHOWN WILL BE CONSIDERED TO BE INCIDENTAL AND NO DIRECT COMPENSATION WILL BE MADE THEREFOR. PROVIDE FOR REMOVAL AND DISPOSAL (OUTSIDE OF THE CONSTRUCTION ZONE) OF ALL INPLACE STRUCTURES THAT WILL INTERFERE WITH CONSTRUCTION. DISPOSAL OF ITEMS REMOVED UNDER THIS CONTRACT SHALL BE IN ACCORDANCE WITH SECTION 2104.3C3 OF THE SPECIFICATIONS. EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH THE SECTIONS 2104.3C3 AND 2105.30 OF THE SPECIFICATIONS. COMPACTION OF GRADING ITEMS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SPECIFICATION SECTION 2105.3F2 "QUALITY COMPACTION METHOD". WHEN EXCAVATING ADJACENT TO INPLACE PAVEMENT, NO MATERIAL SHALL BE REMOVED FROM INSIDE AN APPROXIMATE 1:1 SLOPED LINE DRAWN DOWNWARD AND OUTWARD FROM THE BOTTOM OF THE INPLACE PAVEMENT. WHEN ADDING TO EXISTING BITUMINOUS PAVEMENT, THE EDGE OF EXISTING PAVEMENT SHALL BE CUT TO A NEAT LINE PRIOR TO CONSTRUCTING ADDITIONAL ASPHALT SURFACING. STABILIZING AGGREGATE SHALL BE APPLIED IF NECESSARY TO ACHIEVE SATISFACTORY SURFACE STABILITY AS DETERMINED BY THE ENGINEER. THE MATERIAL SHALL SATISFY THE REQUIREMENTS OF SECTION 3140.20 AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 2105.30 OF THE SPECIFICATIONS. USE TACK COAT BETWEEN ALL BITUMINOUS COURSES. COMPACTION OF ALL BITUMINOUS COURSES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH MINDOT SPEC 2105.3F2 "QUALITY COMPACTION METHOD".		Construction Notes: THE CONTRACTOR SHALL MAINTAIN A MINIMUM CLEARANCE OF 1 FEET (0.3 M) BETWEEN CROSSING OF EXISTING WATER LINES AND PROPOSED STORM SEWER LINES. WHERE CONFLICTS OCCUR, THE WATER LINE SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. COMPENSATION FOR RELOCATION WORK SHALL BE AS SET FORTH IN THE SPECIAL PROVISIONS. ALL USES OF THE WORD "INCIDENTAL" IN THESE CONSTRUCTION DOCUMENTS SHALL BE CONSTRUED TO MEAN INCIDENTAL WORK FOR WHICH NO DIRECT COMPENSATION SHALL BE MADE. ALL EXISTING TRAFFIC SIGNS ON THE PROJECT WILL BE SALVAGED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. COMPENSATION FOR SALVAGE SIGN WORK SHALL BE AS SET FORTH IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL NOTIFY THE RAMSEY COUNTY SURVEYOR AT 651-268-2620 IN ADVANCE OF ANY DISTURBANCE TO INPLACE MONUMENTATION - THIS NOTIFICATION MAY BE MADE THROUGH THE PROJECT ENGINEER.		UNIT OF GOVERNMENT RICE CREEK WATERSHED DISTRICT		PERMITS GRADING PERMIT	
SUMMARY OF PROJECT IMPACT TO THE SITE: TOTAL PROJECT AREA WITHIN CONSTRUCTION LIMITS: 18.95 HECTARES FINAL IMPERVIOUS SURFACE AREA: 7.91 HECTARES FINAL PERVIOUS SURFACE AREA: 11.45 HECTARES		STANDARD DETAIL PLATES THE FOLLOWING STANDARD PLATES, APPROVED BY THE DEPARTMENT OF TRANSPORTATION AND FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY TO THIS PROJECT. M10700 REINFORCED PANEL OVER CULVERTS M11033 TYPICAL CROWN BAR ASSEMBLY M11410 PAVEMENT KEYWAY FOR KEYED JOINT CONSTRUCTION M11500 CONSTRUCTION OF BEARER JOISTS M13000 REINFORCED CONCRETE PILES M13060 BASKET JOINT FOR RC PILES M13040 CORRUGATED METAL PIPE CULVERT M13123 METAL APRON FOR C.S. CULVERT M13330 RIP RAY AT RIP UTILITIES M14500 CONCRETE PIPE M14500 CONCRETE APRON FOR RC PIPE M40000 MANHOLE OR CATCH BASIN DESIGN A M40050 MANHOLE OR CATCH BASIN DESIGN F M40090 MANHOLE OR CATCH BASIN DESIGN H M40100 PRECAST CONCRETE BASE M40180 MANHOLE OR CATCH BASIN REDUCER CONE SECTION M40200 MANHOLE OR CATCH BASIN REDUCER COVER (UNDER TRAFFIC) M41800 MANHOLE OR CATCH BASIN STEP M70000 INTEGRANT CURBS M70030 CONCRETE WALK & CURB RETURNS AT ENTRANCES M70030 REINFORCED CURB RAMP M70050 BITUMINOUS CURB M70100 CONCRETE CURB AND GUTTER M70100 MEDIAN NOSE AND ISLAND M71100 INSTALLATION OF CATCH BASIN CASTINGS M71120 INSTALLATION AND REINFORCEMENT OF CB AND MH CASTINGS M71130 CONCRETE APPROACH NOSE DETAIL M10000 STANDARD BARRICADE M10200 INSTALLATION OF CULVERT MARKERS M10220 CURB ESTABLISHMENT & EROSION CONTROL M32220 CHAIN LINK FENCE					
INDEX OF TABULATION CHARTS SHEET NO. CHART NO. DESCRIPTION 6 EXISTING UTILITY/ DRAINAGE MODIFICATIONS 7 REMOVE BITUMINOUS PAVEMENT 7 C MAIL BOX SALVAGE AND REINSTALL 7 D SAWCUT CONCRETE PAVEMENT 7 E MISCELLANEOUS REMOVALS/ SALVAGE 7 F CONCRETE PAVEMENT REMOVALS 7 G SAWCUT BITUMINOUS PAVEMENT 7 H EXISTING SIGN SALVAGE 8 CLEAR & GRUB 8 J AGGREGATE QUANTITIES SUMMARY 8 K PERMANENT PAVEMENT MARKINGS 9 CONCRETE QUANTITIES SUMMARY 9 M BITUMINOUS QUANTITIES SUMMARY 9 N PERMANENT SIGNING 10, 11 PROPOSED DRAINAGE TABULATION 12 JURF ESTABLISHMENT & EROSION CONTROL 12 O SEED MIXTURE SCHEDULE 13 S EARTHWORK TABULATION BY STATION 97-100 R EARTHWORK TABULATION BY STATION		ASBUILT PLAN CONFORMING TO CONST. RECORDS DONE BY: J.B. DATE: 2-16-07					
REVISIONS REV. NO. BY DATE REVISION DESCRIPTION 1 BY J.B. 12/13/2002		DESIGN FILE: 33915-003-0201 DESIGN BY: R.J.G. DESIGN BY: C.S.B. CHKD. BY: C.S.B. CHKD. NAME: SEP27008 DATE: 12/13/2002					
URS		C.S.A.H. 98 RECONSTRUCTION C.S.A.H. 98, SEGMENT 2 CONSTRUCTION NOTES					
CITY PROJECT COUNTY PROJECT CON-47570 S.P. S.A.P. 62-696-10CTB		SHEET NO. 5 142					

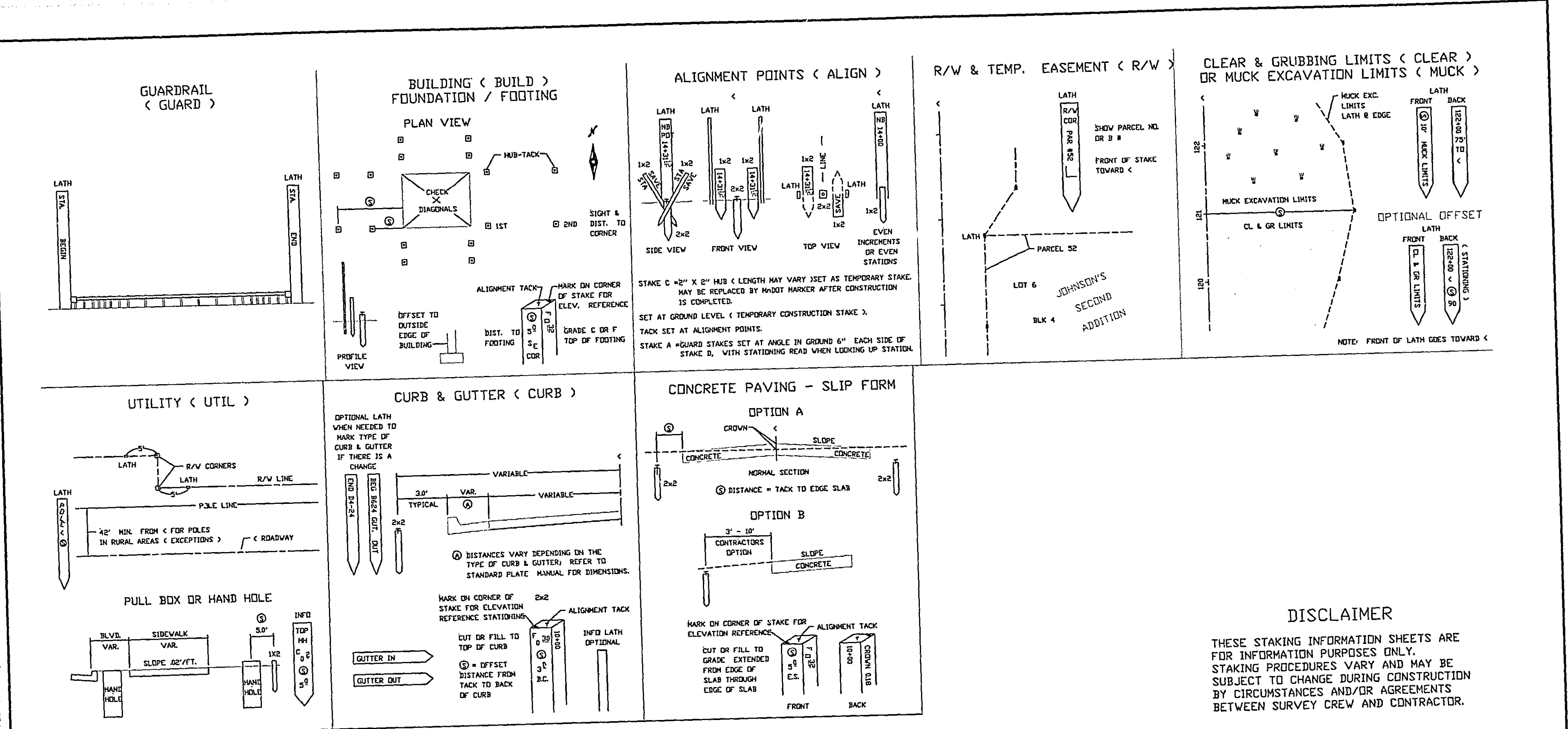
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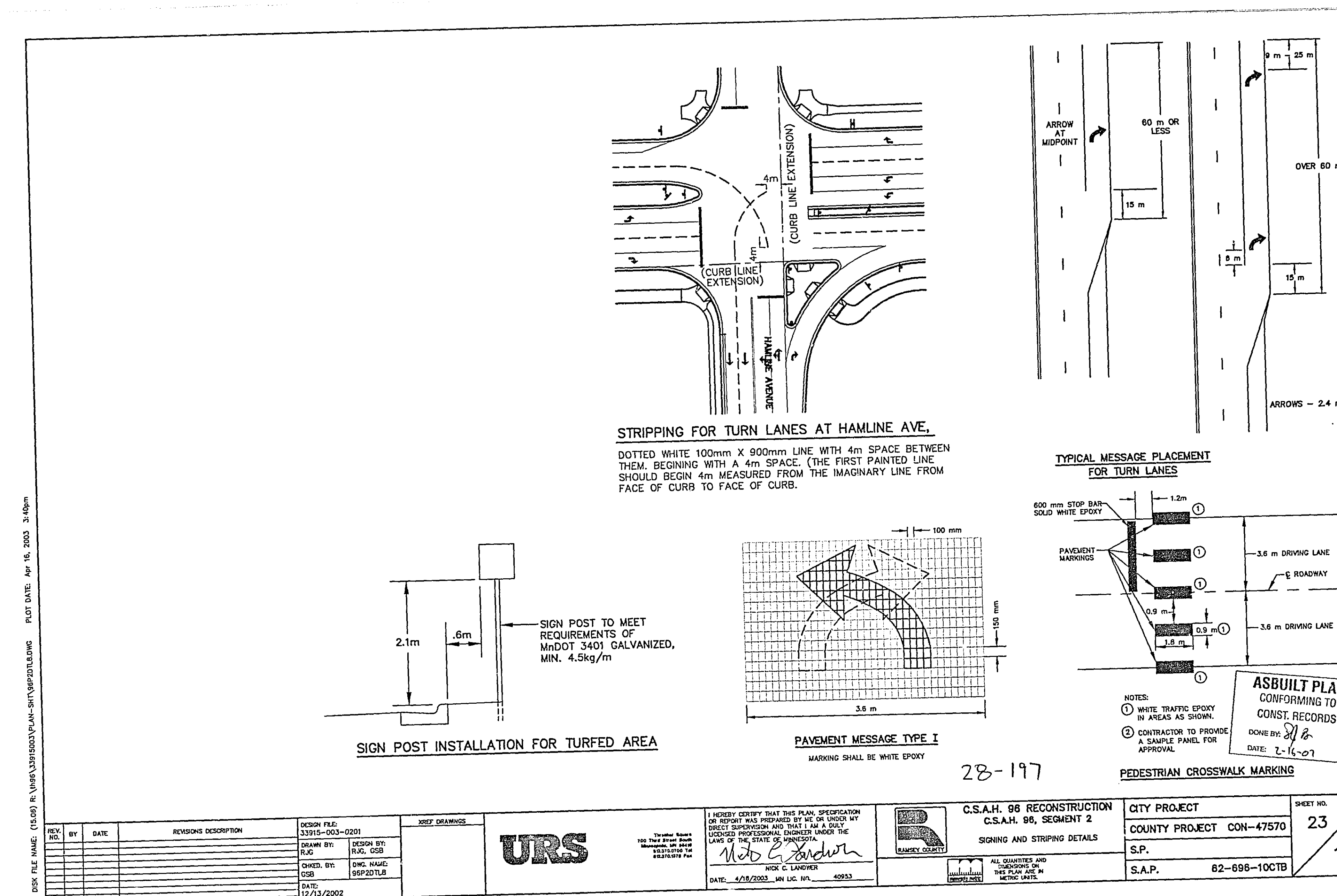


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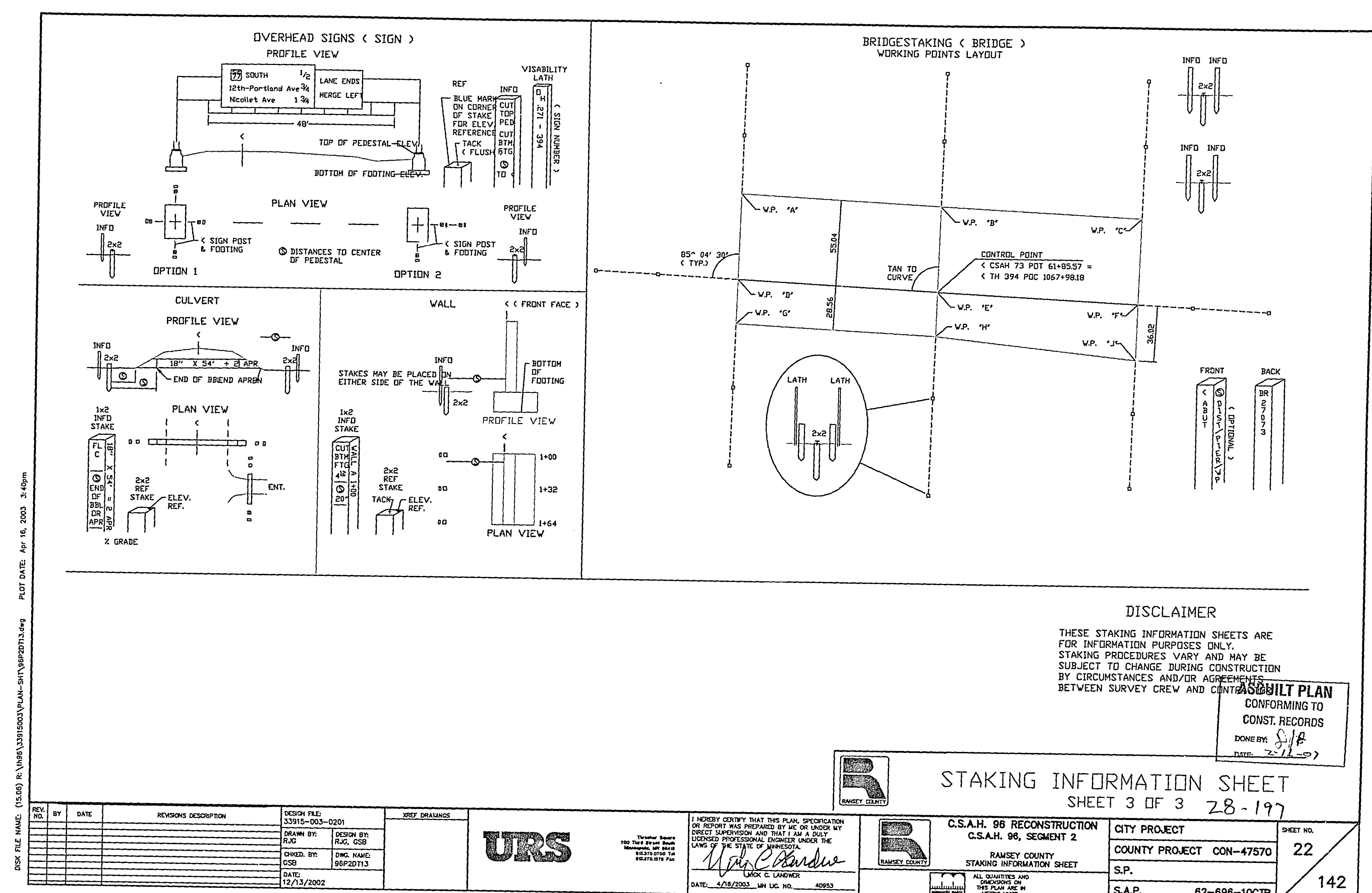


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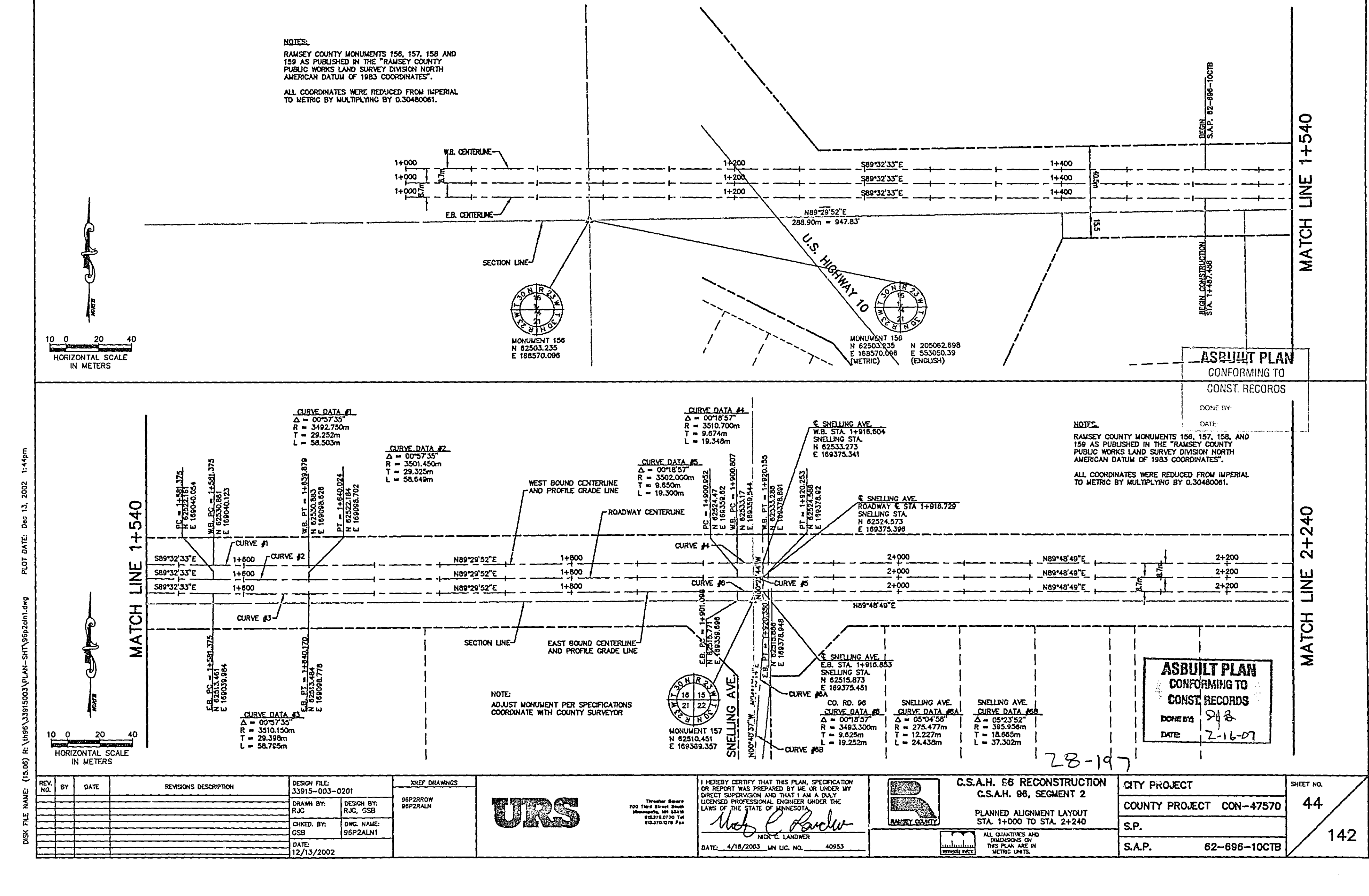
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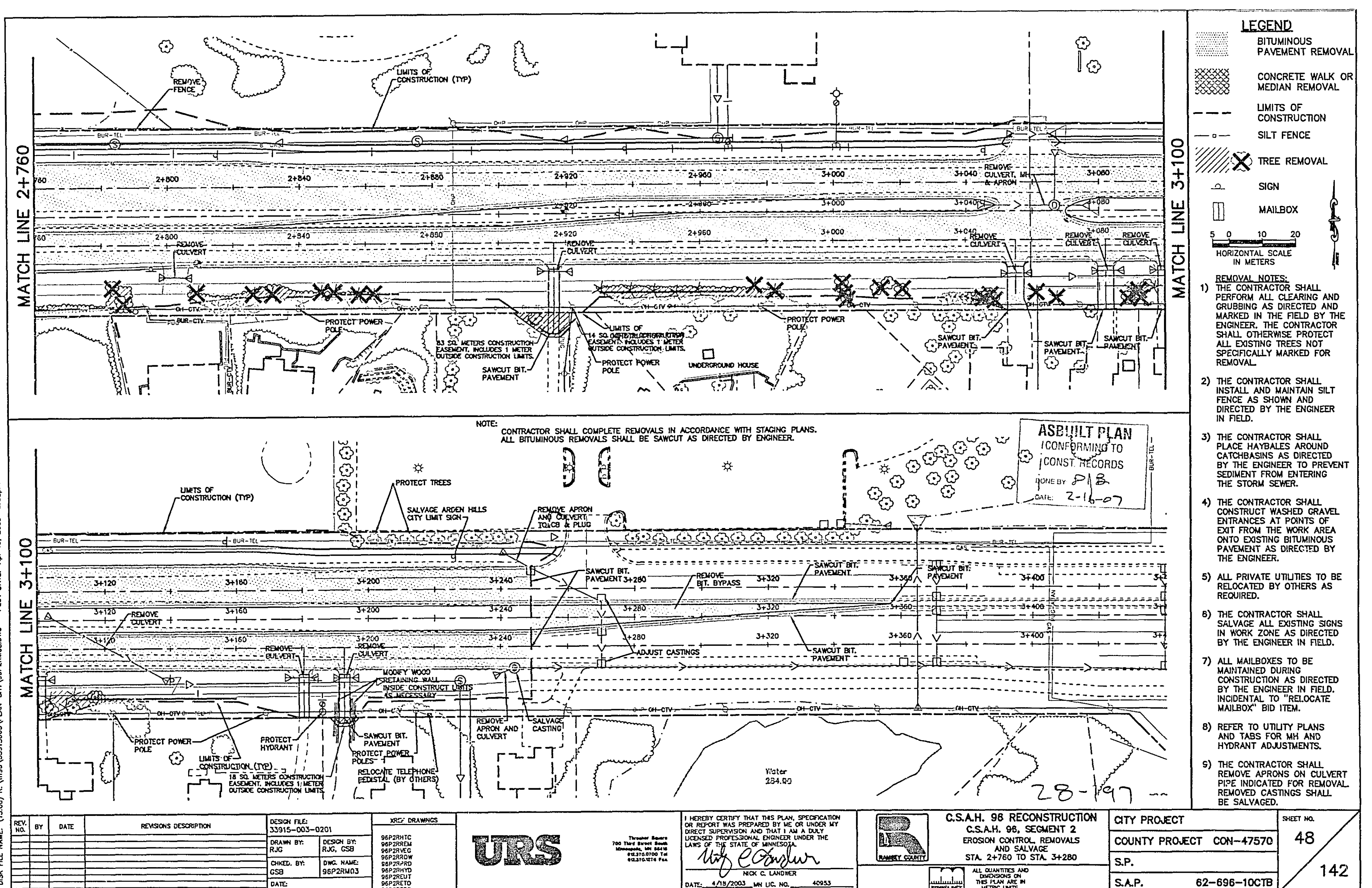
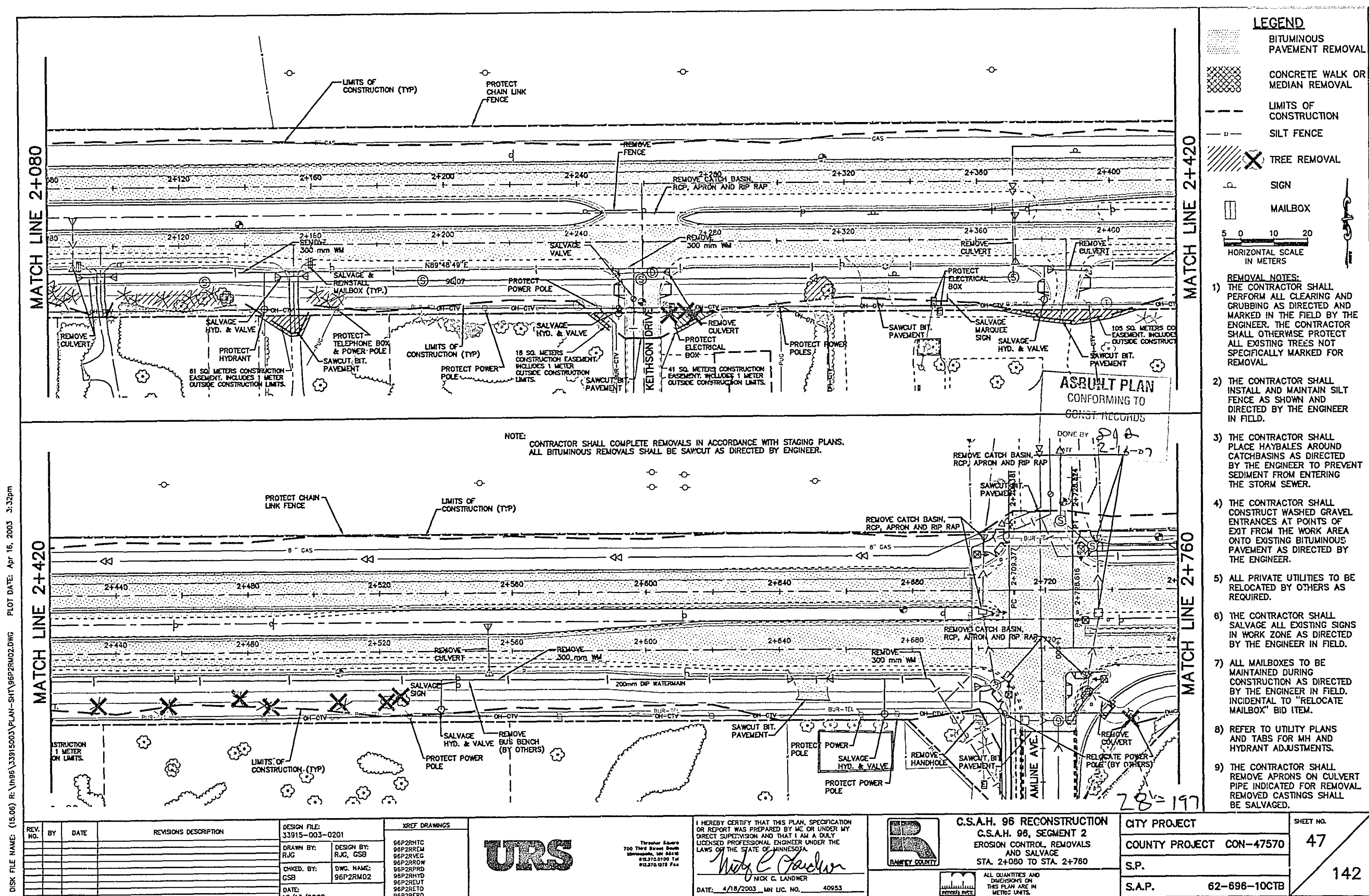
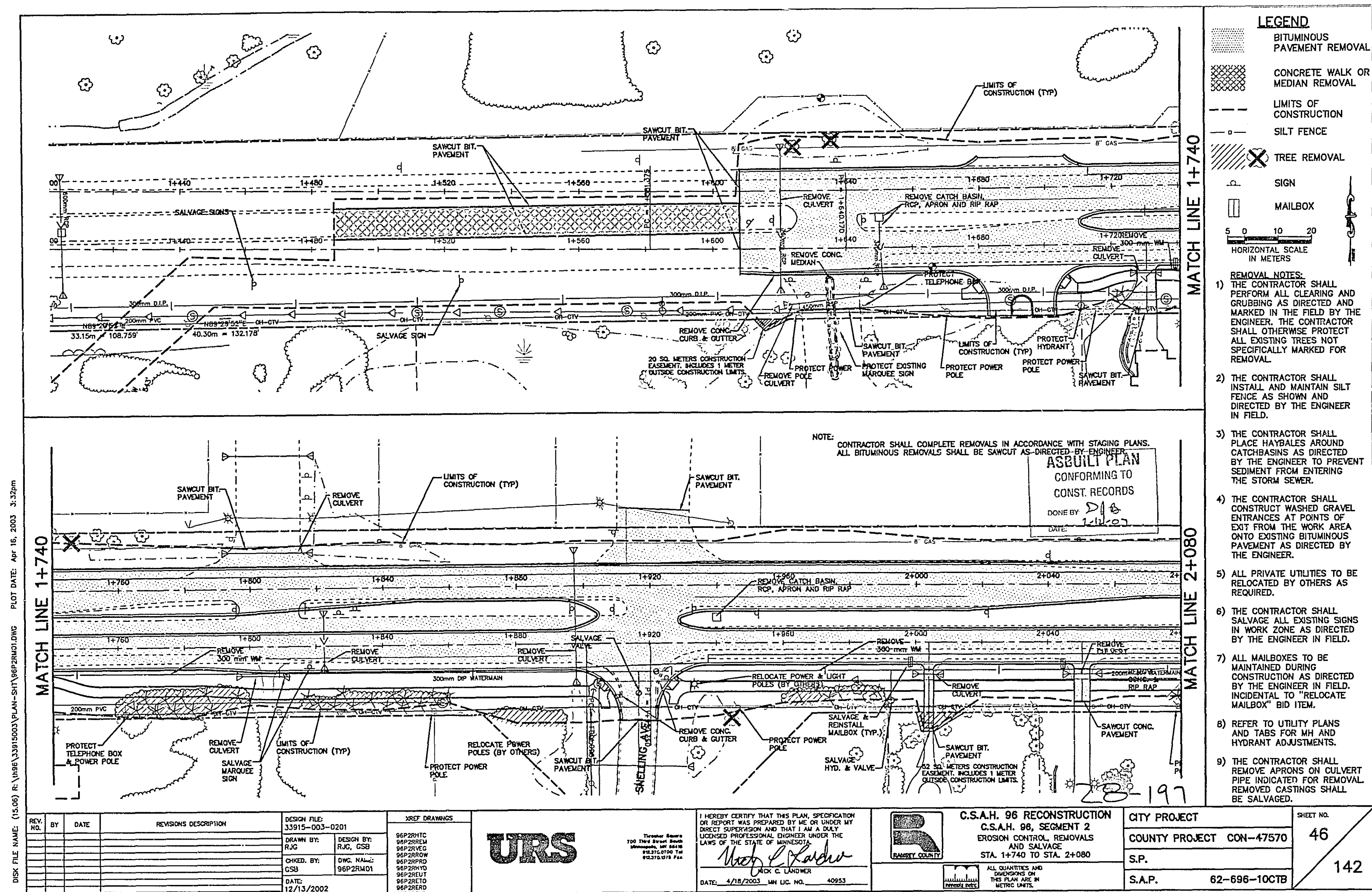
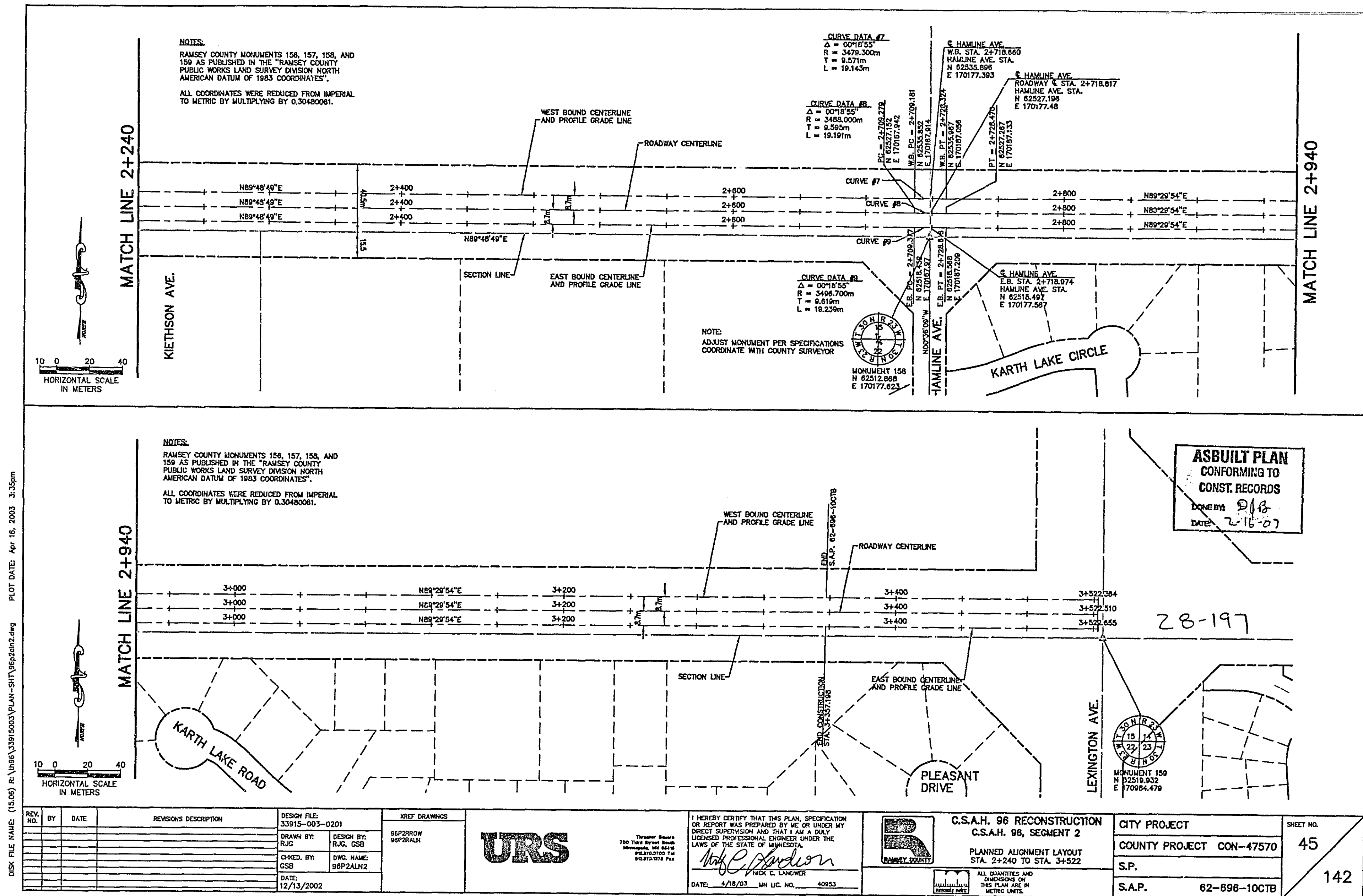
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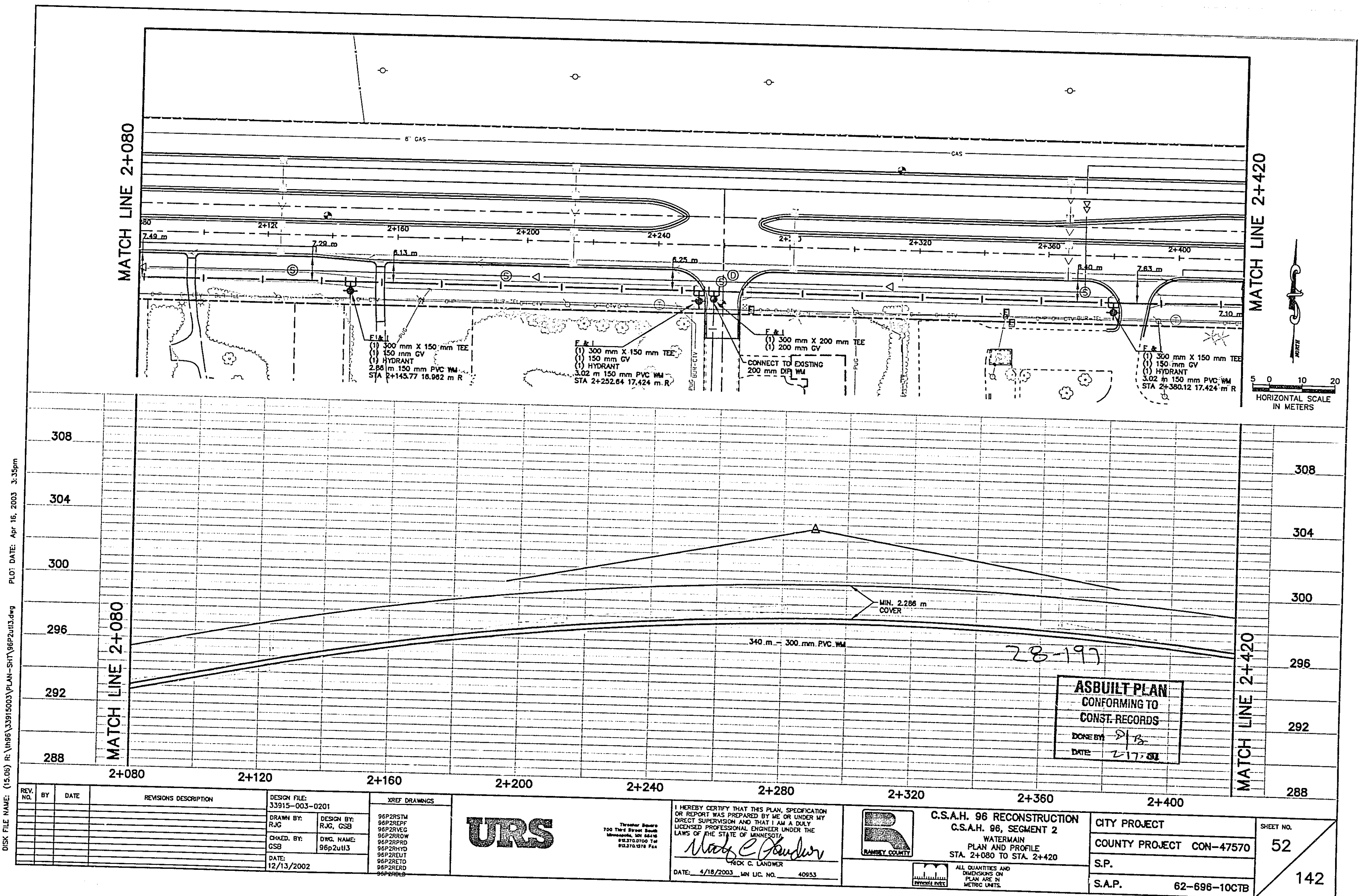
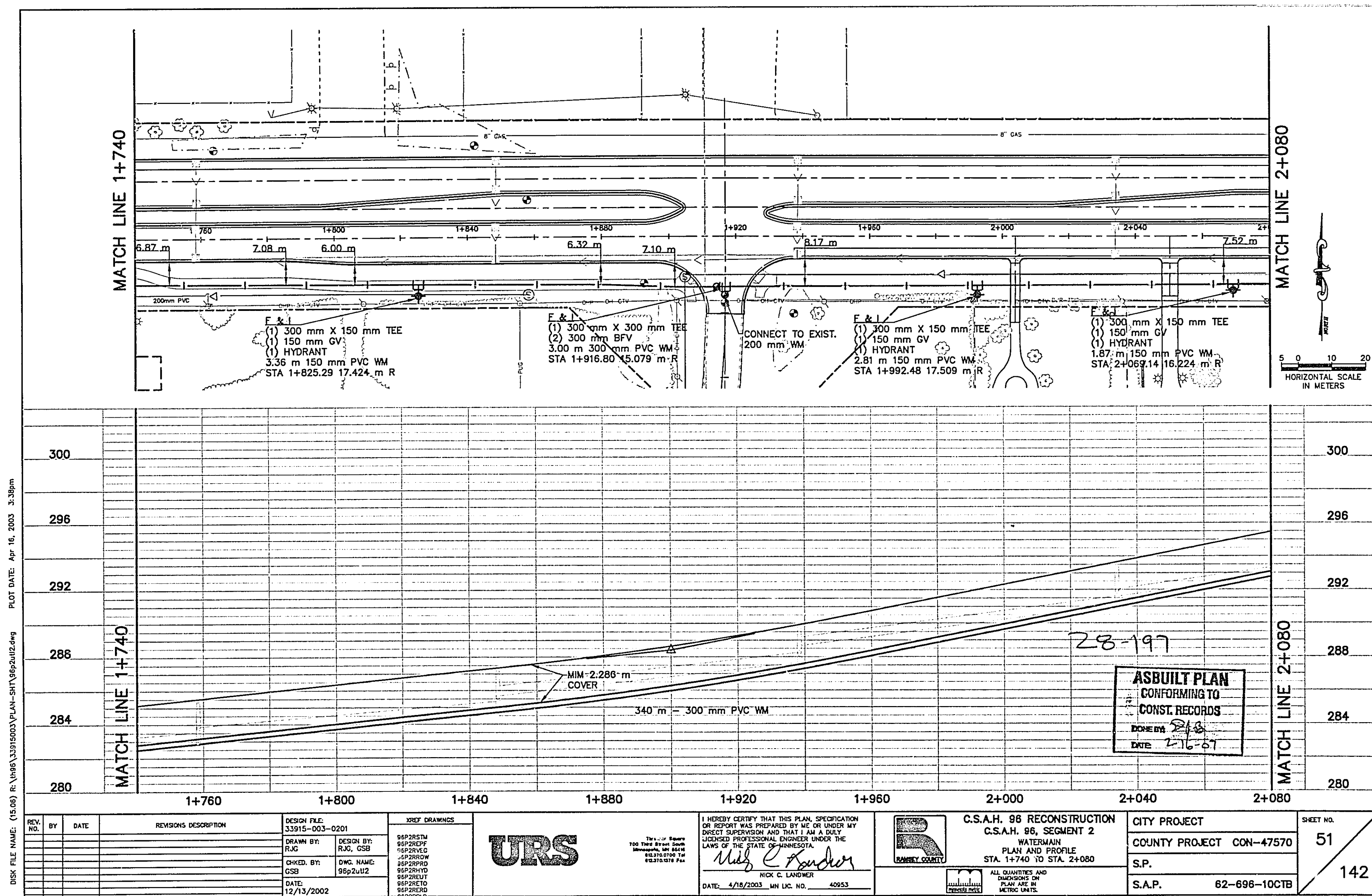
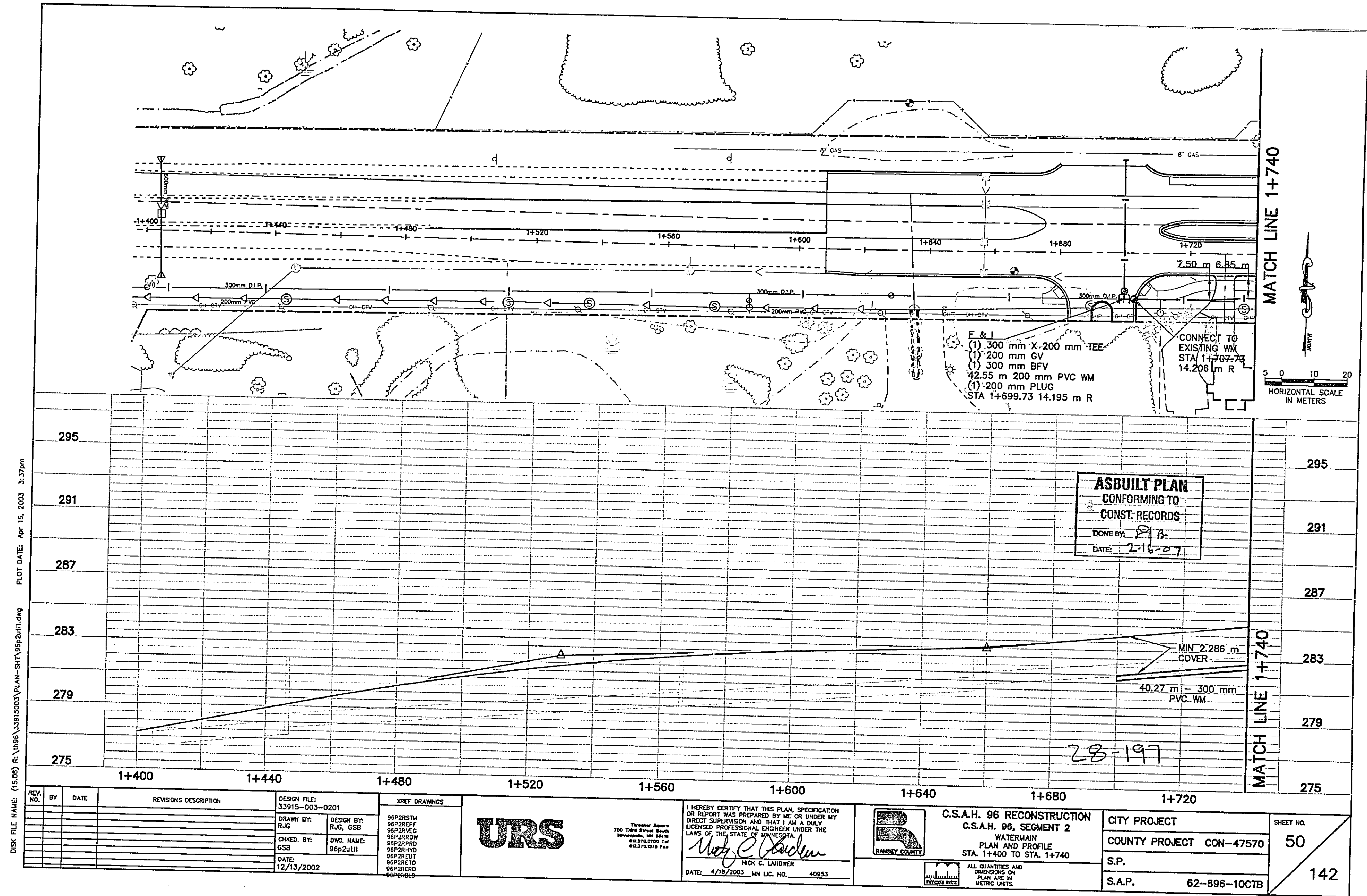
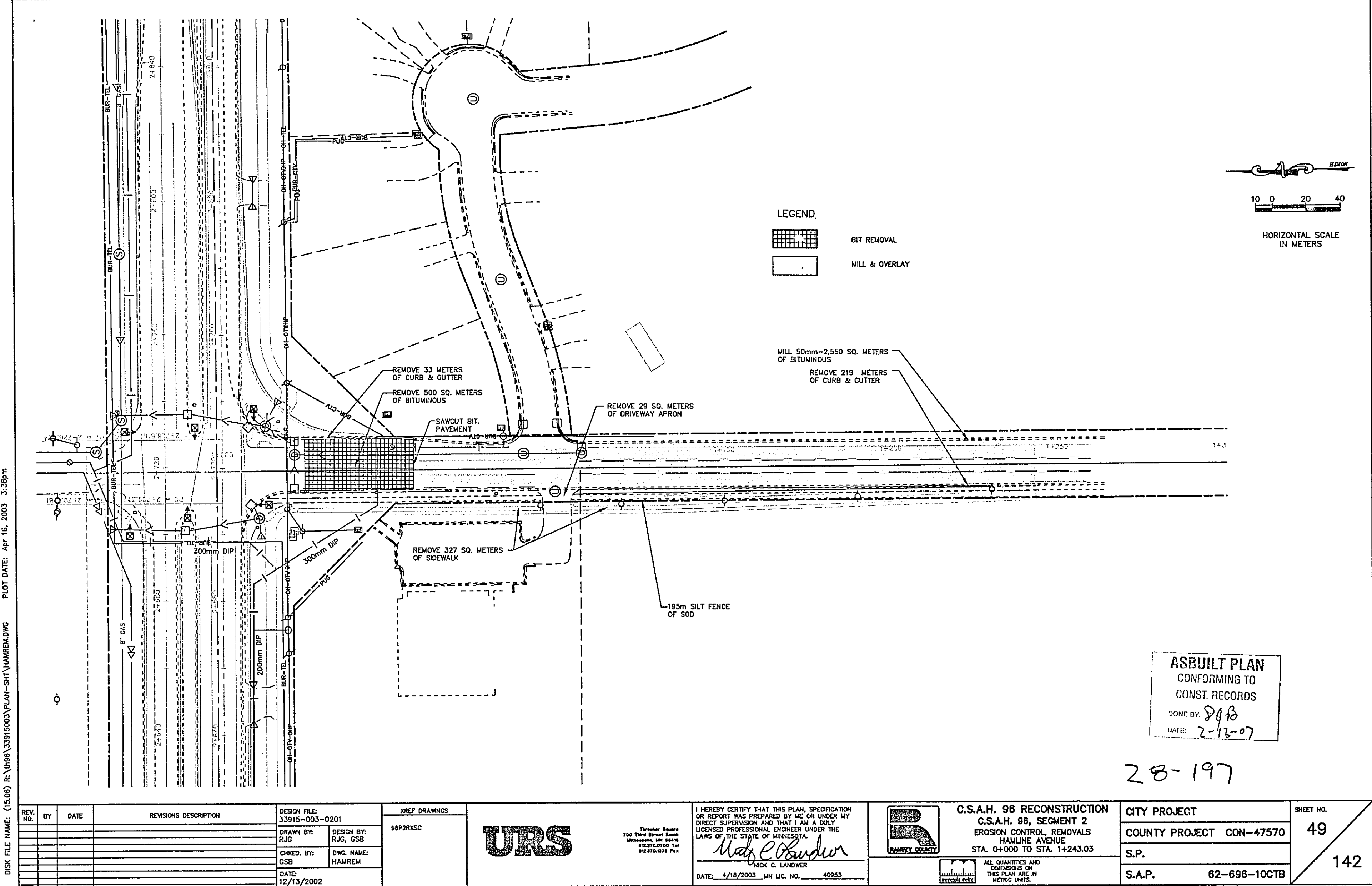


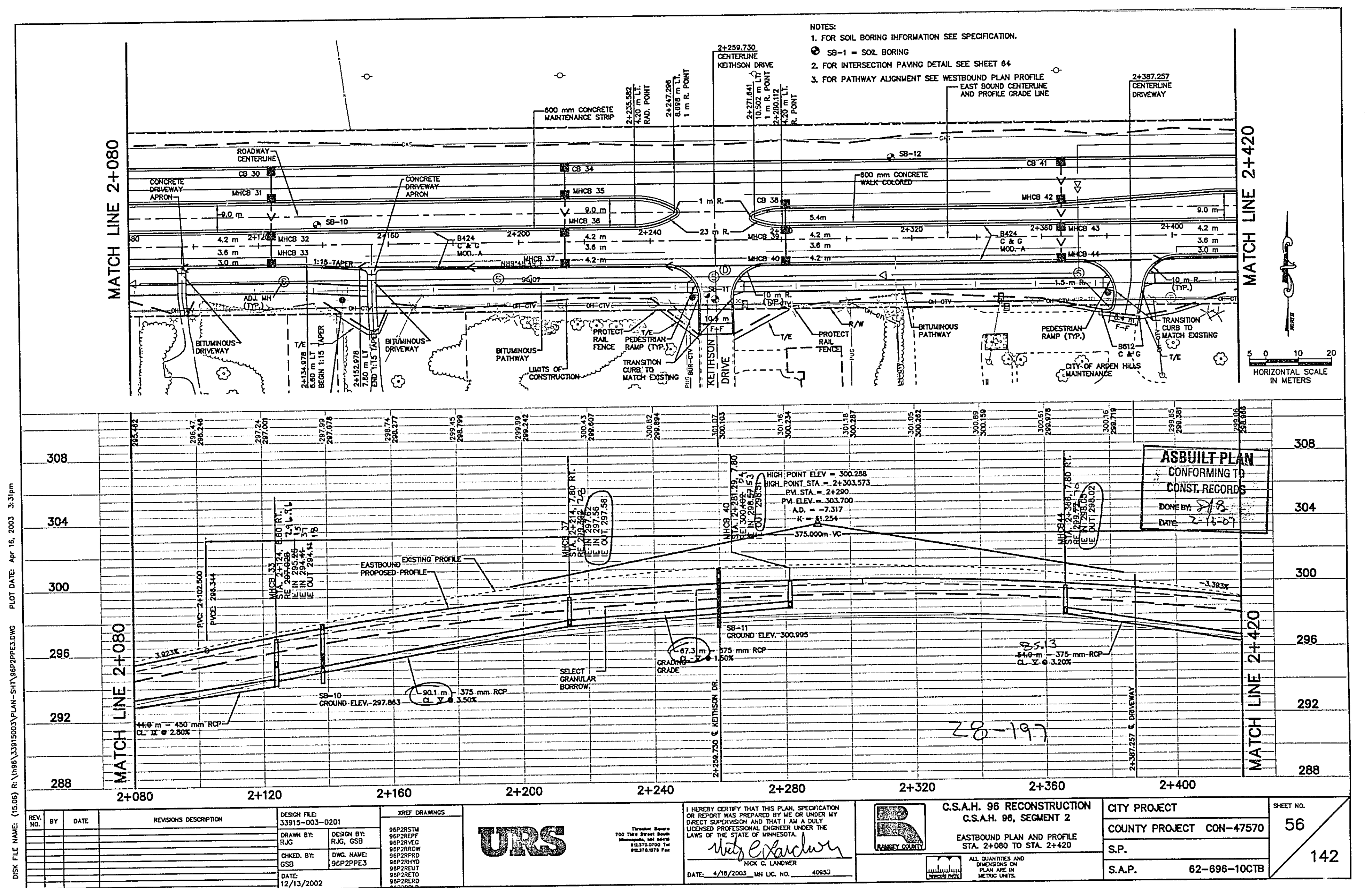
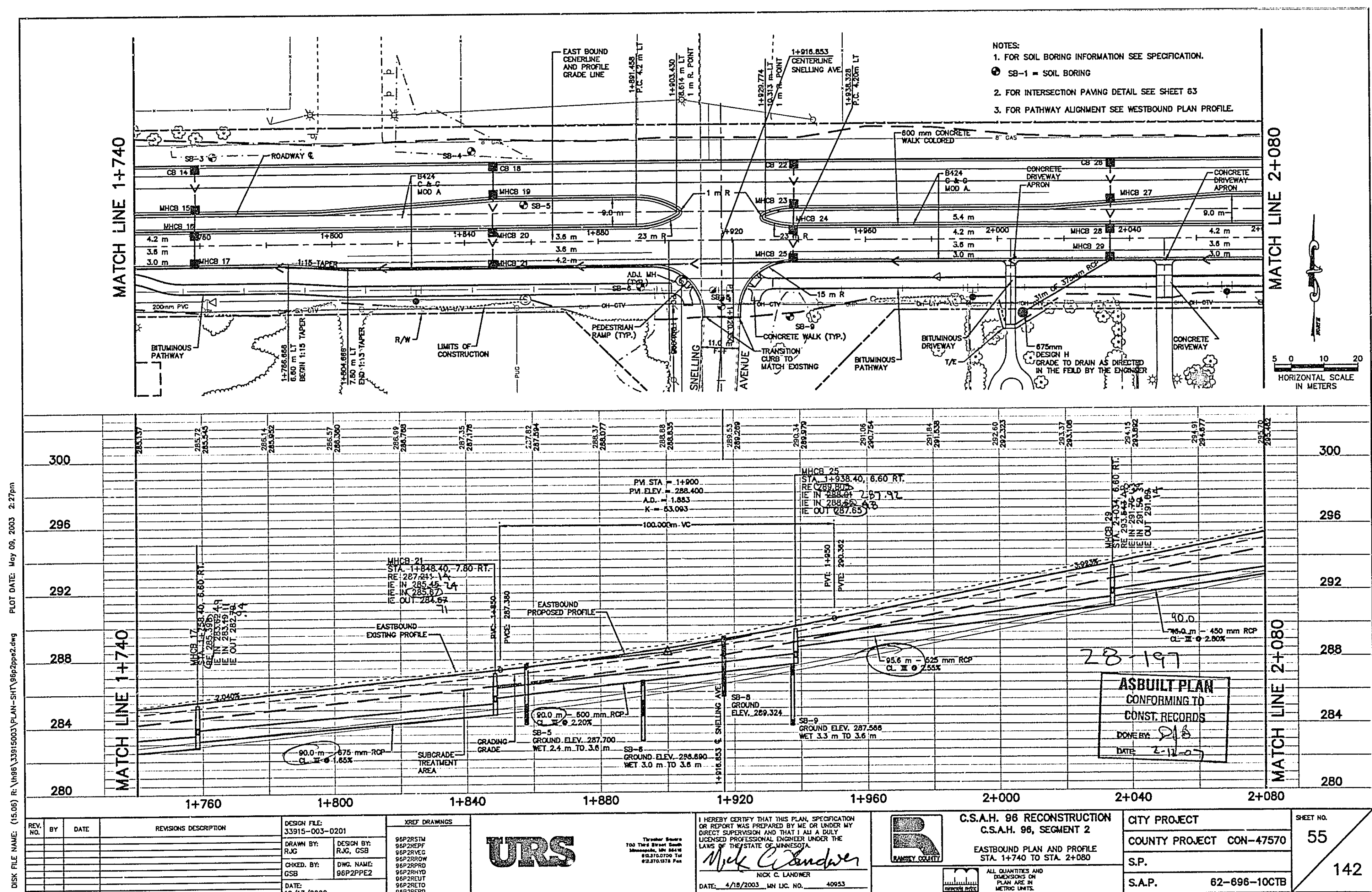
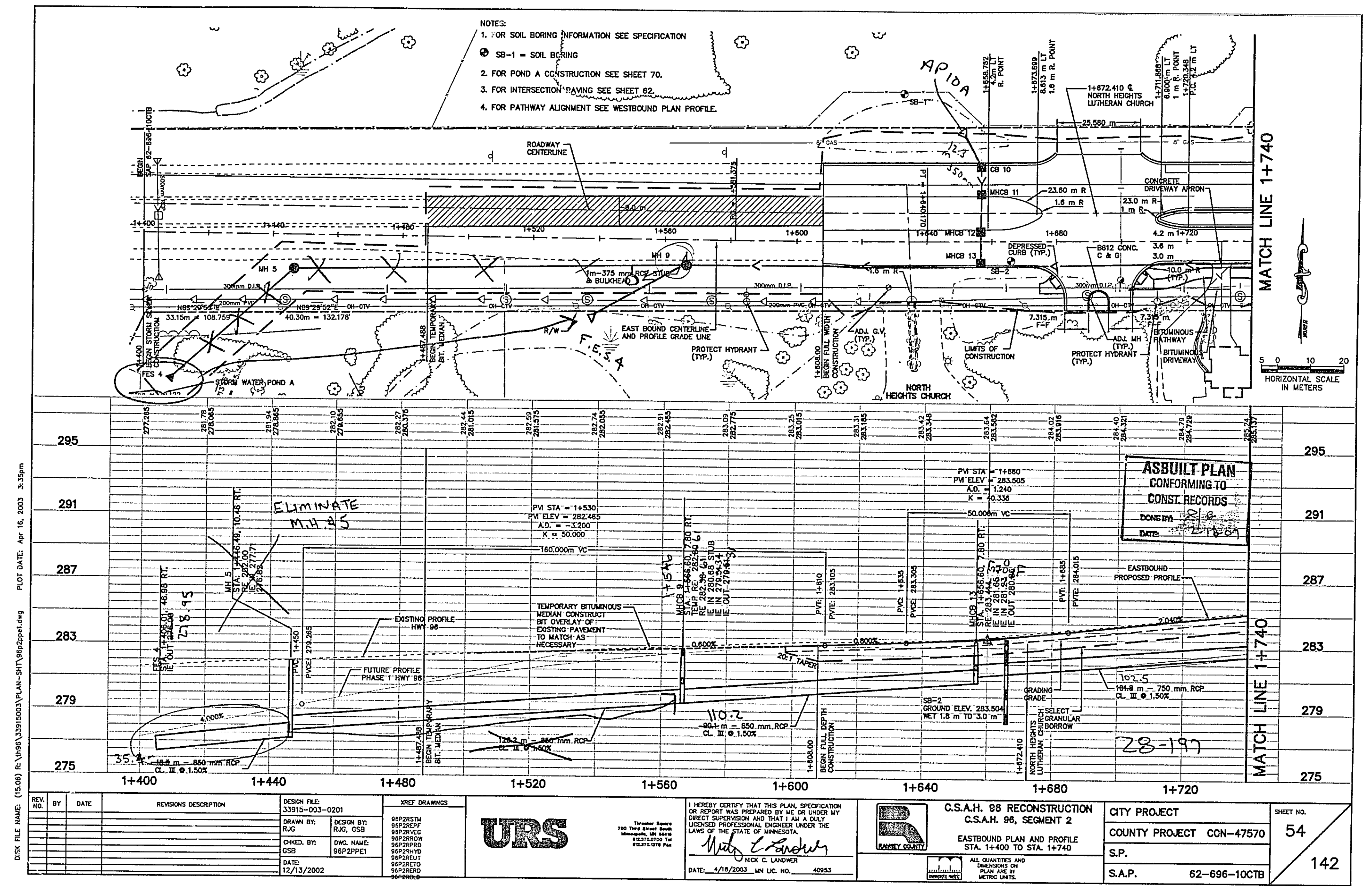
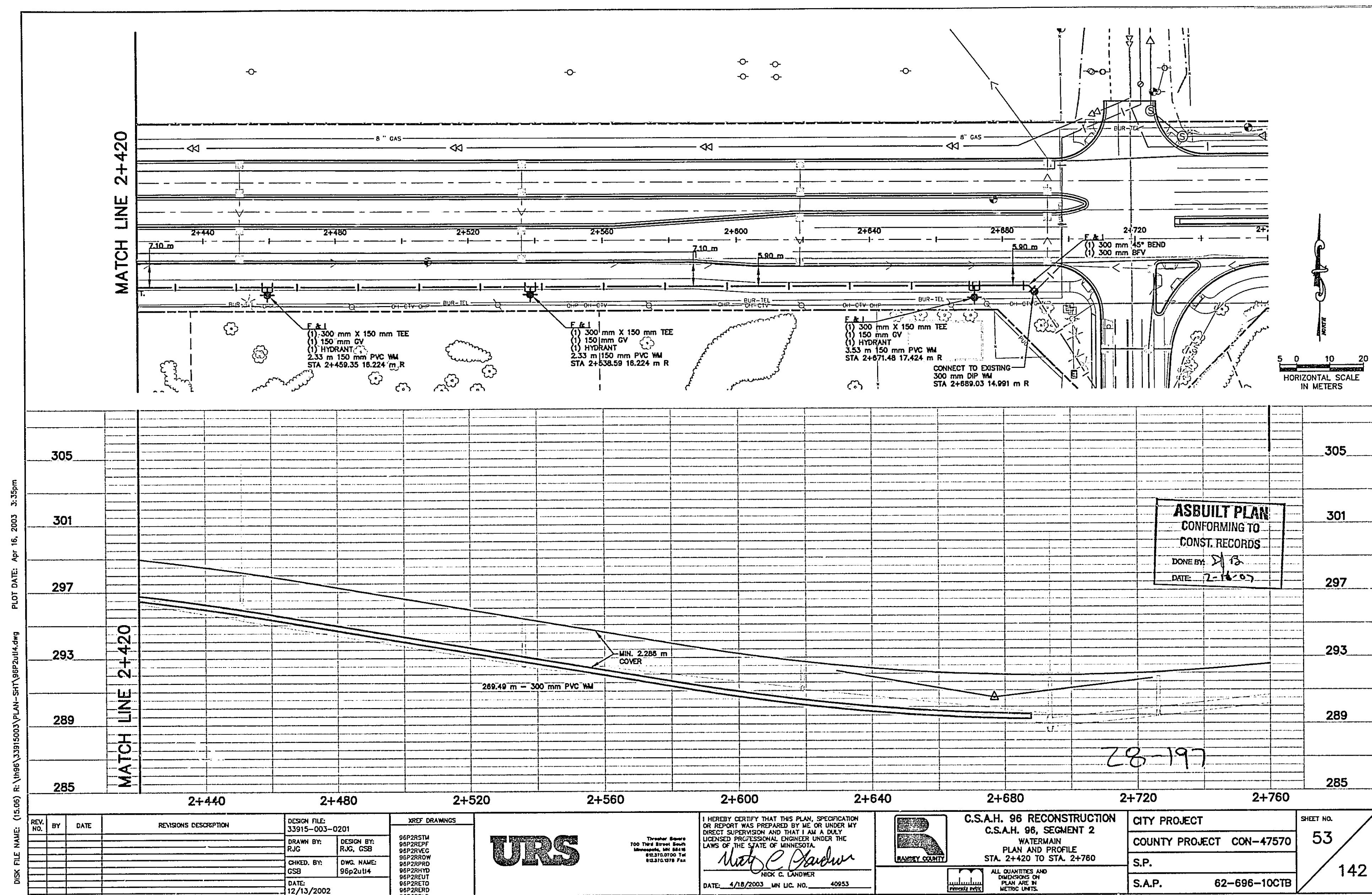
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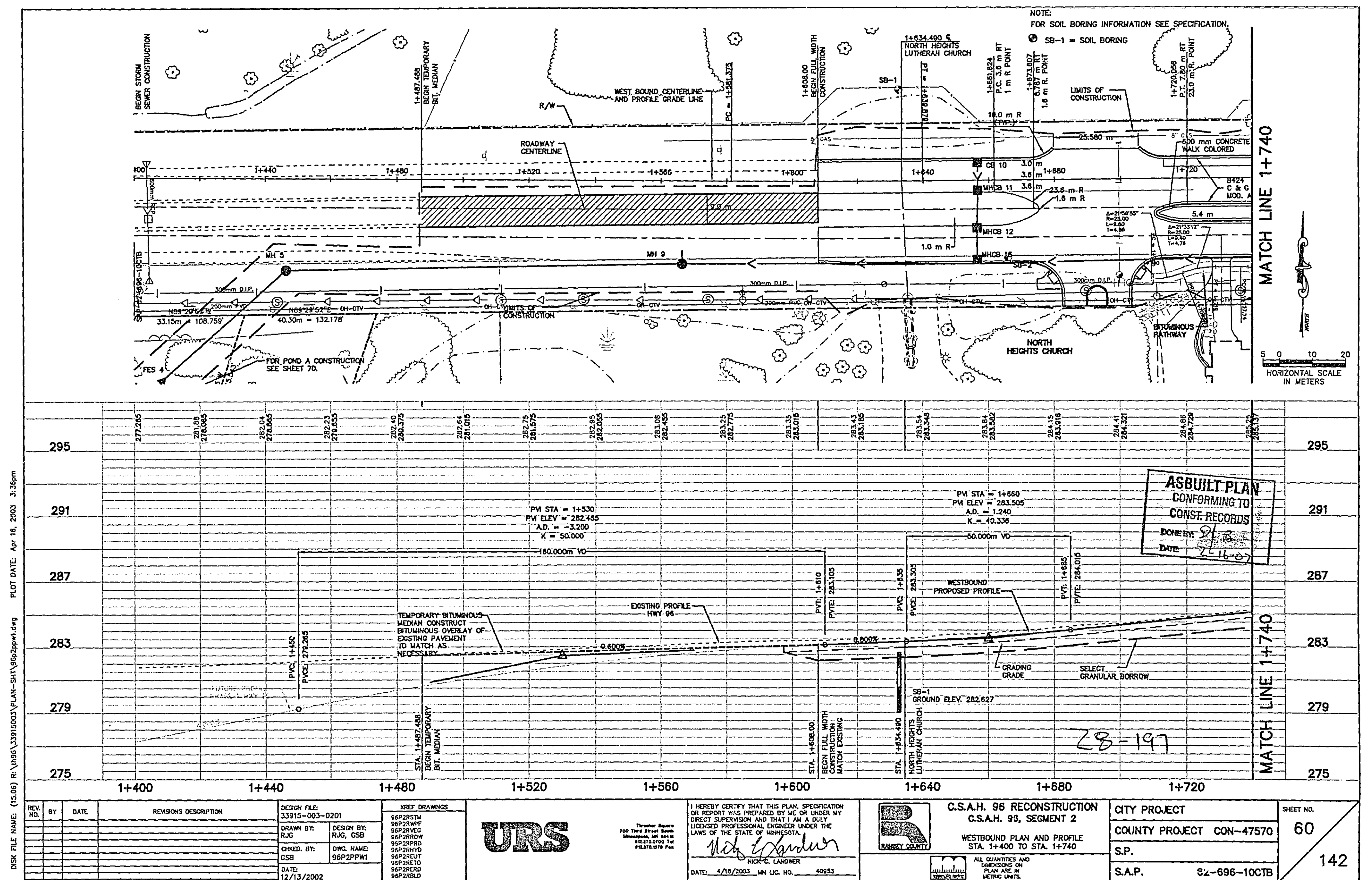
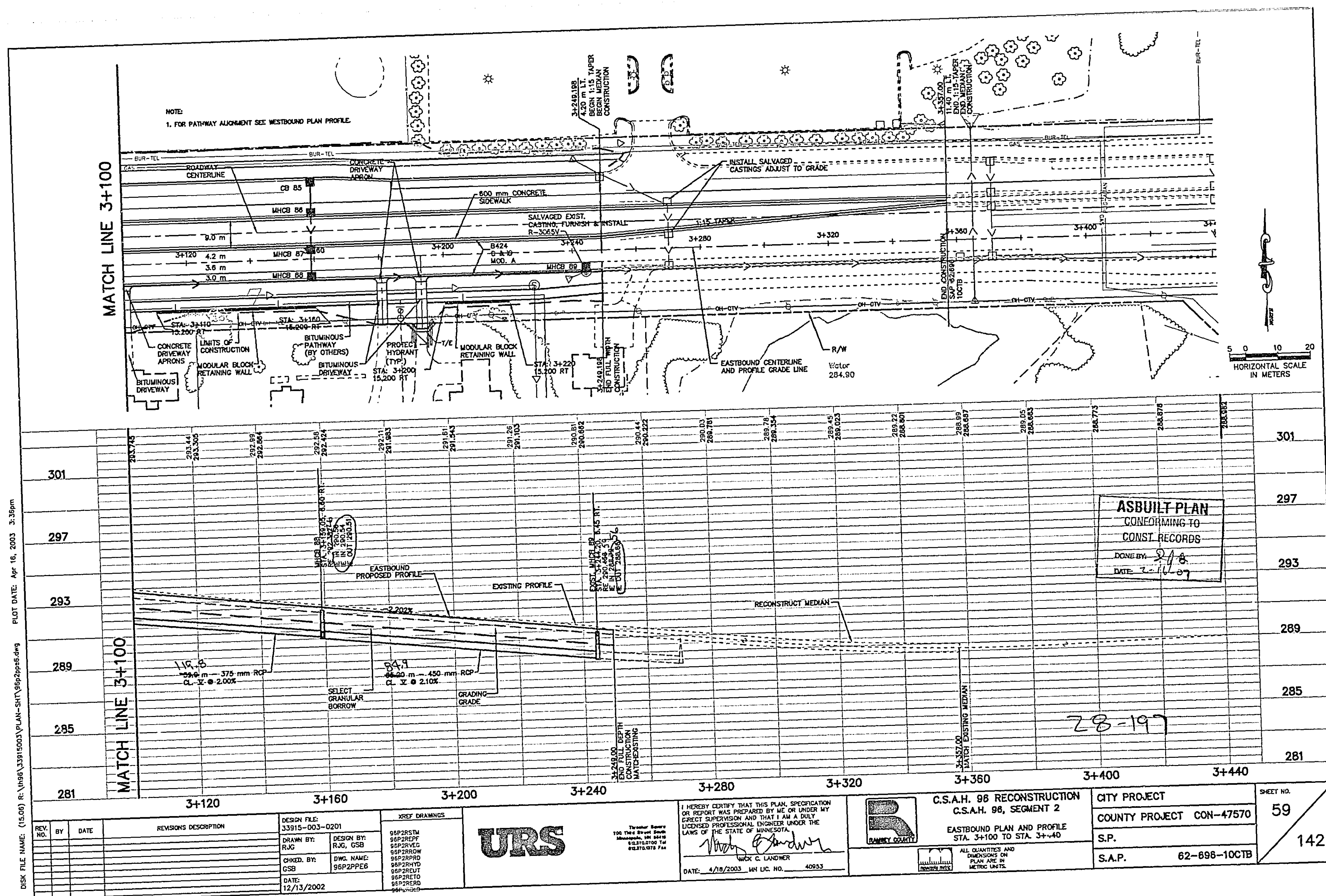
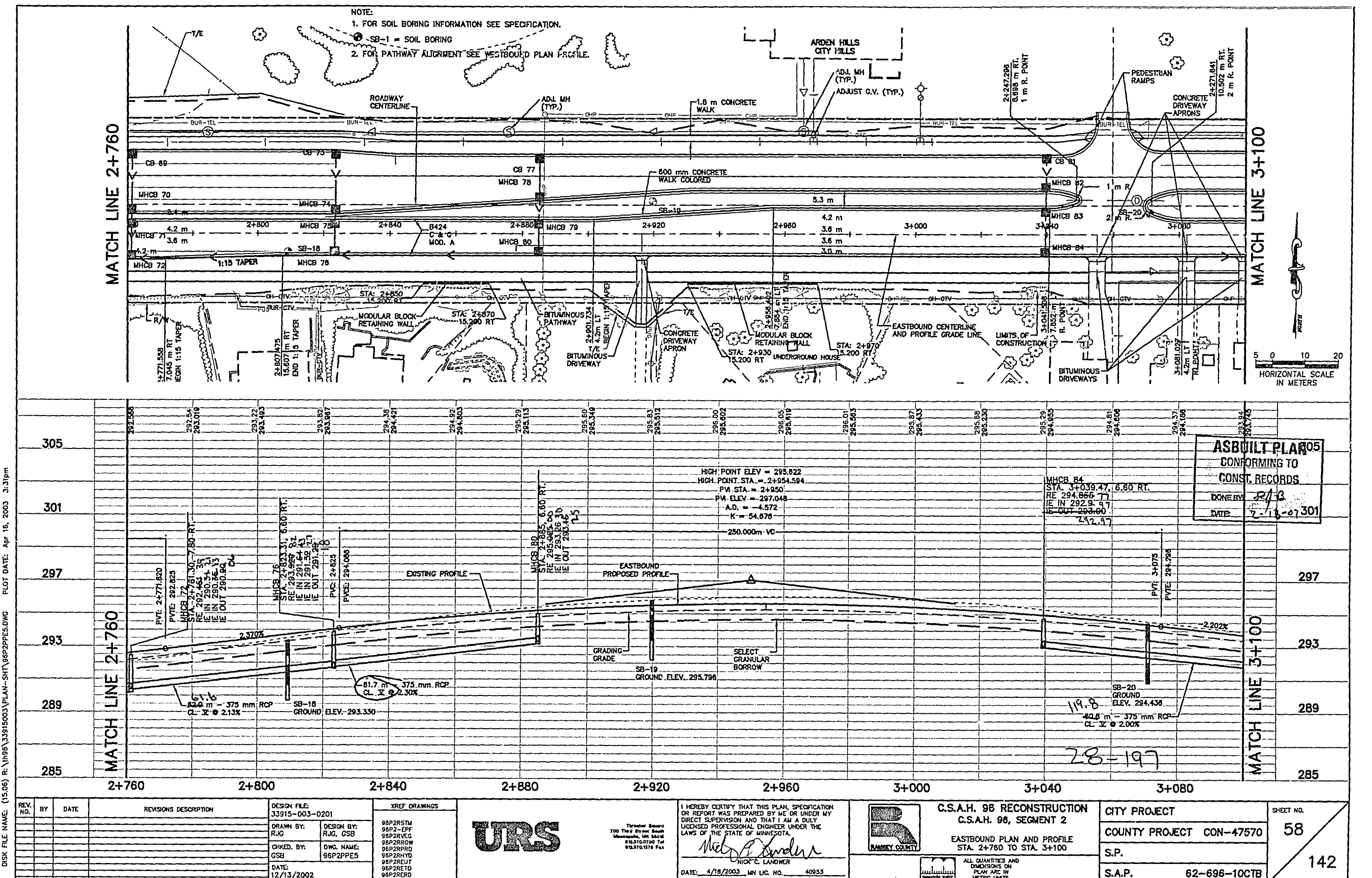
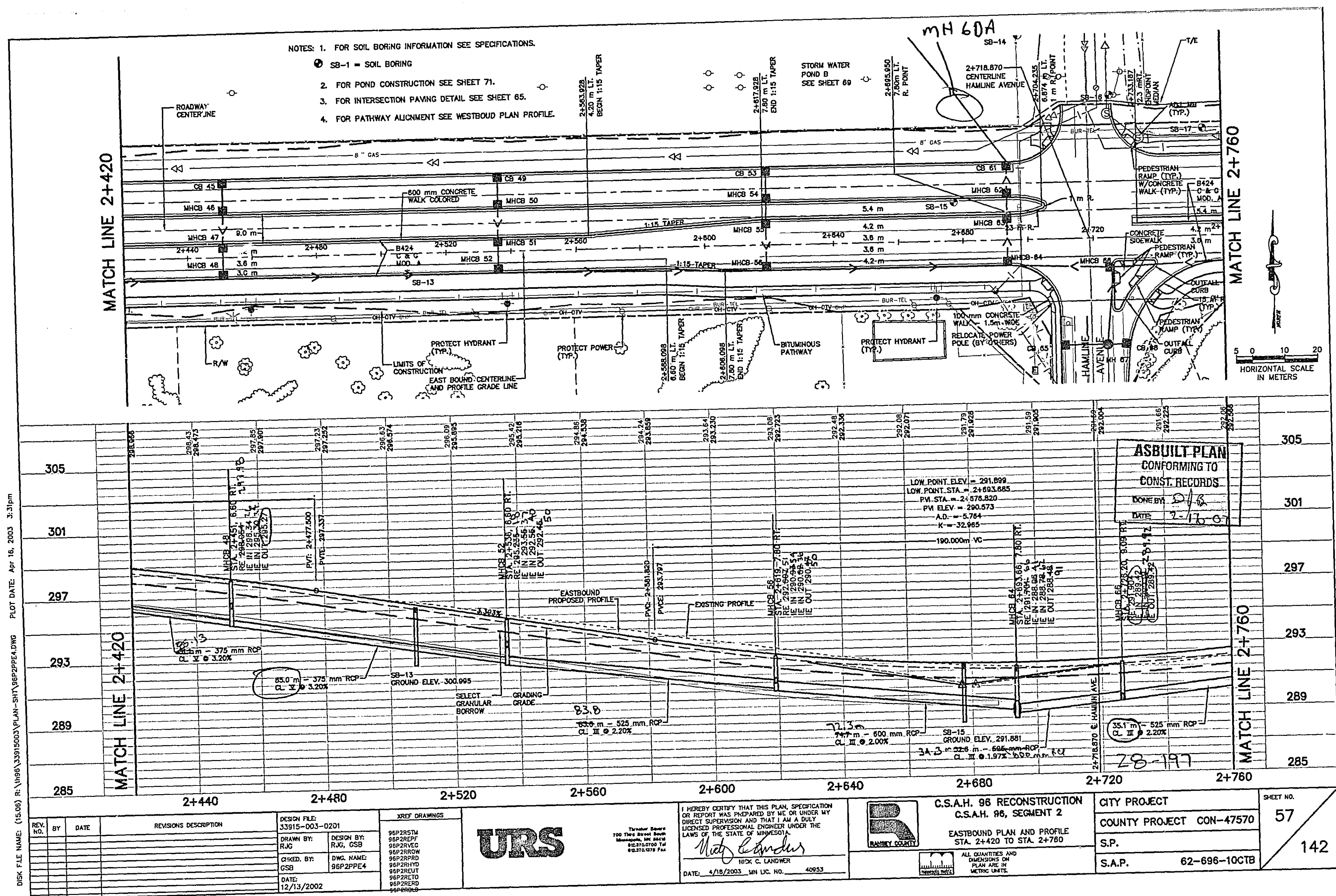


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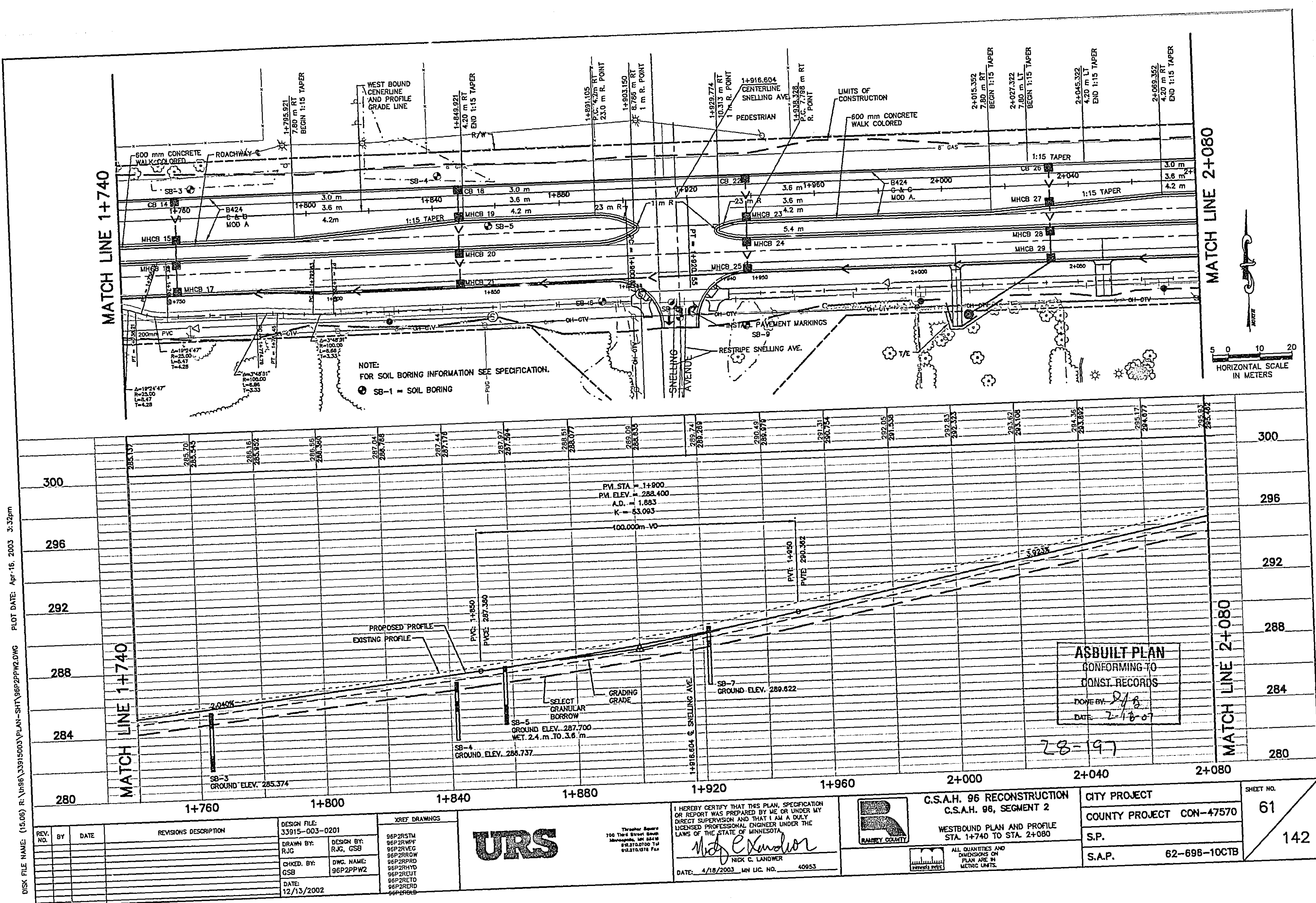




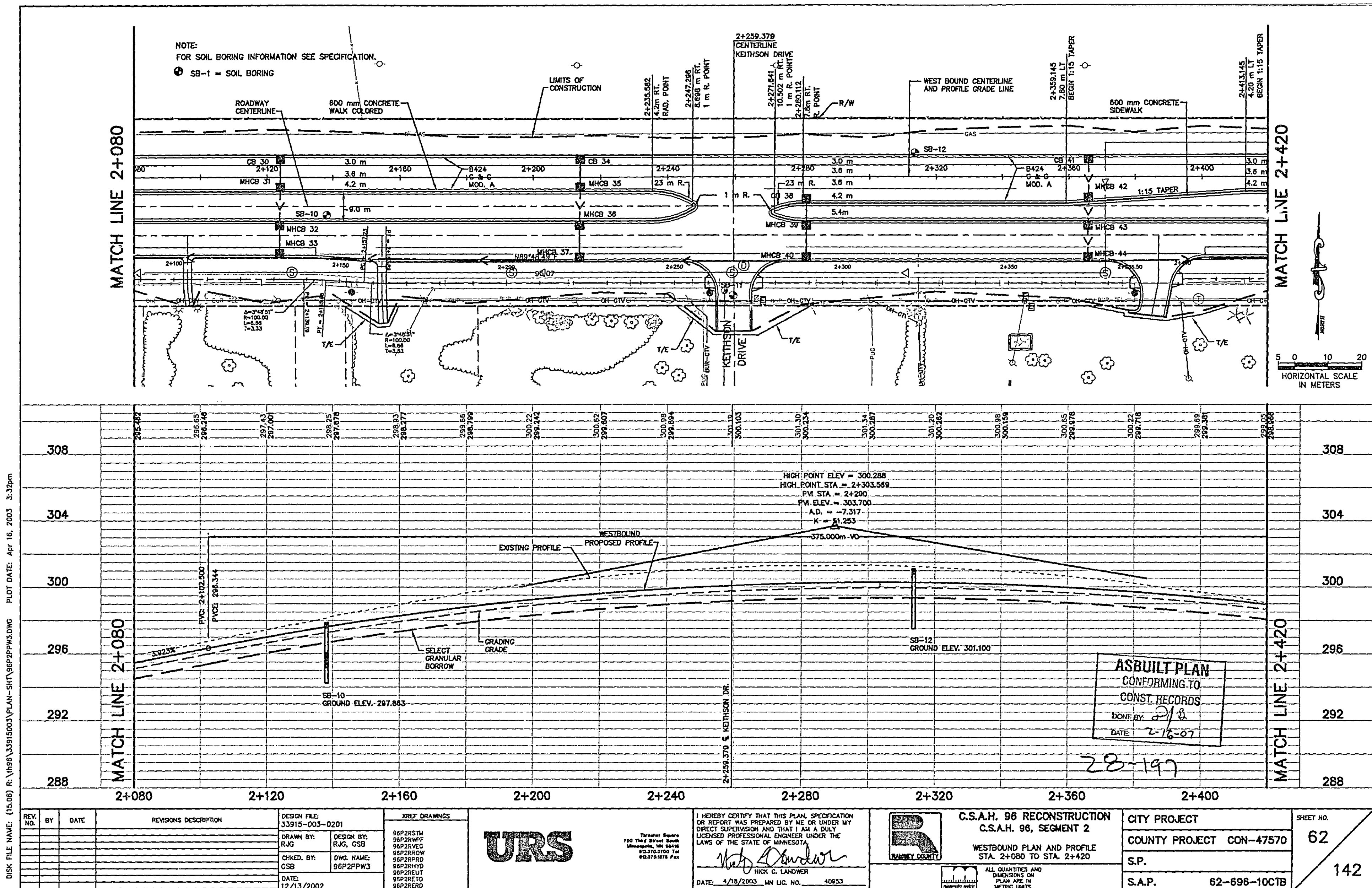




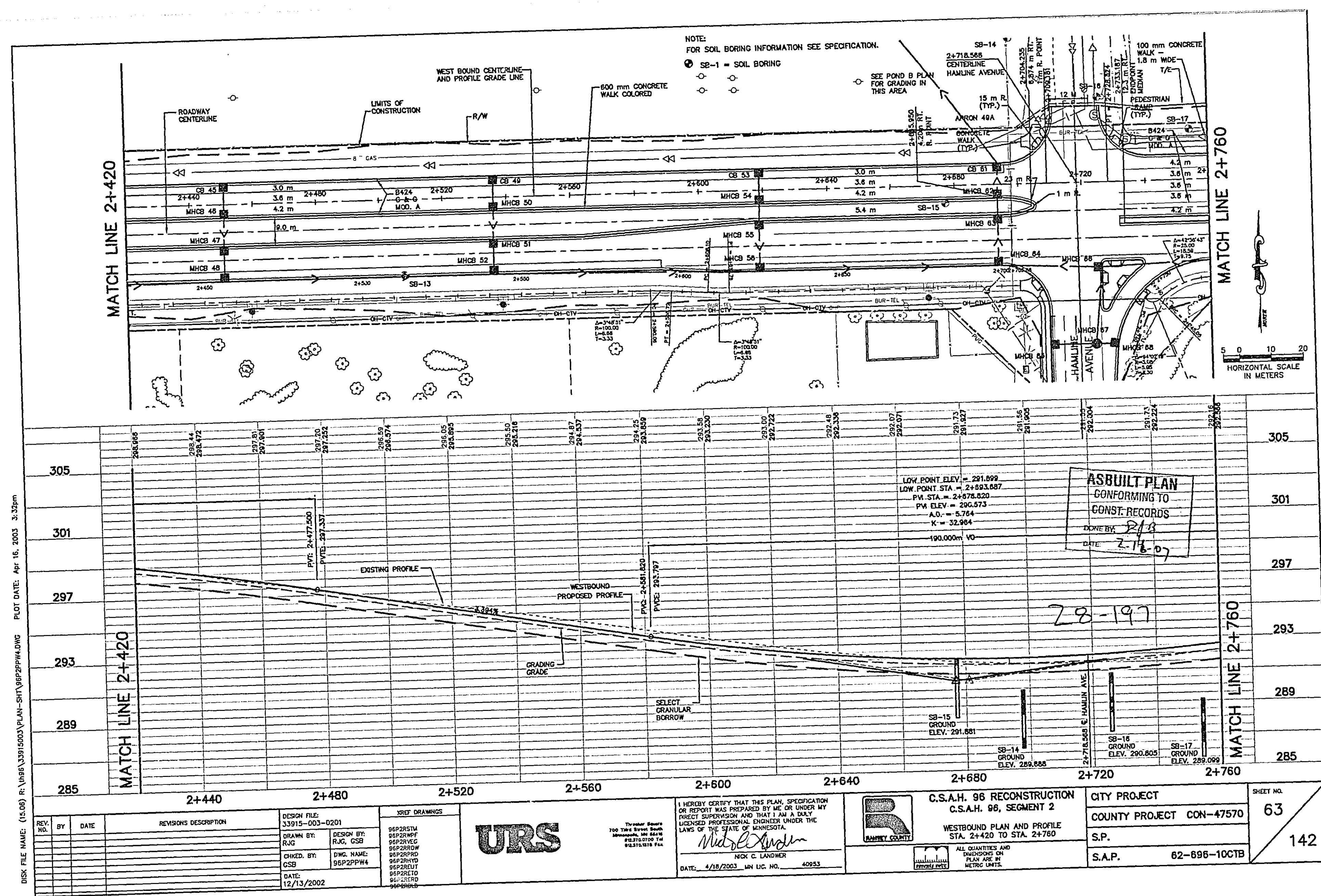
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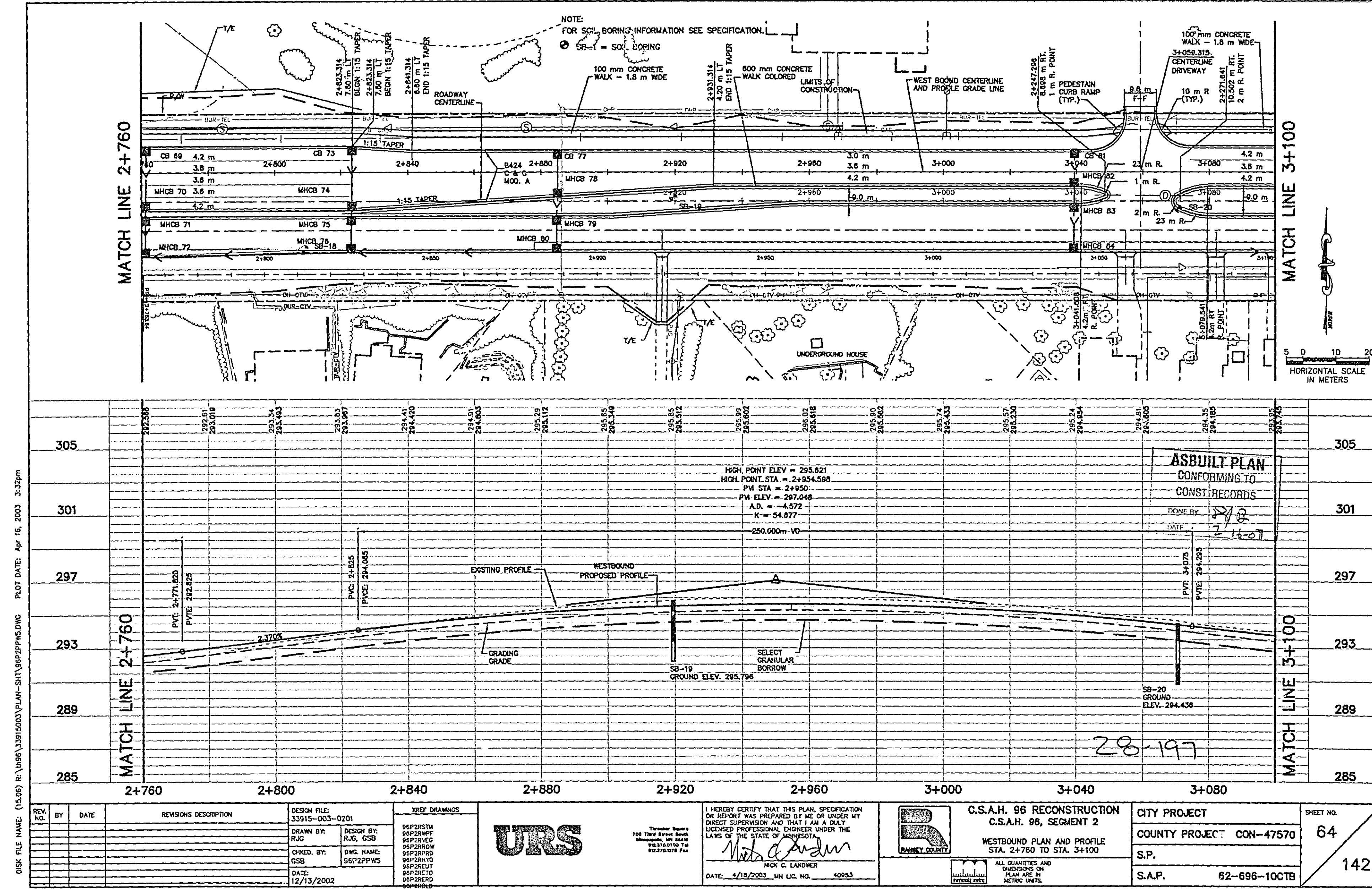
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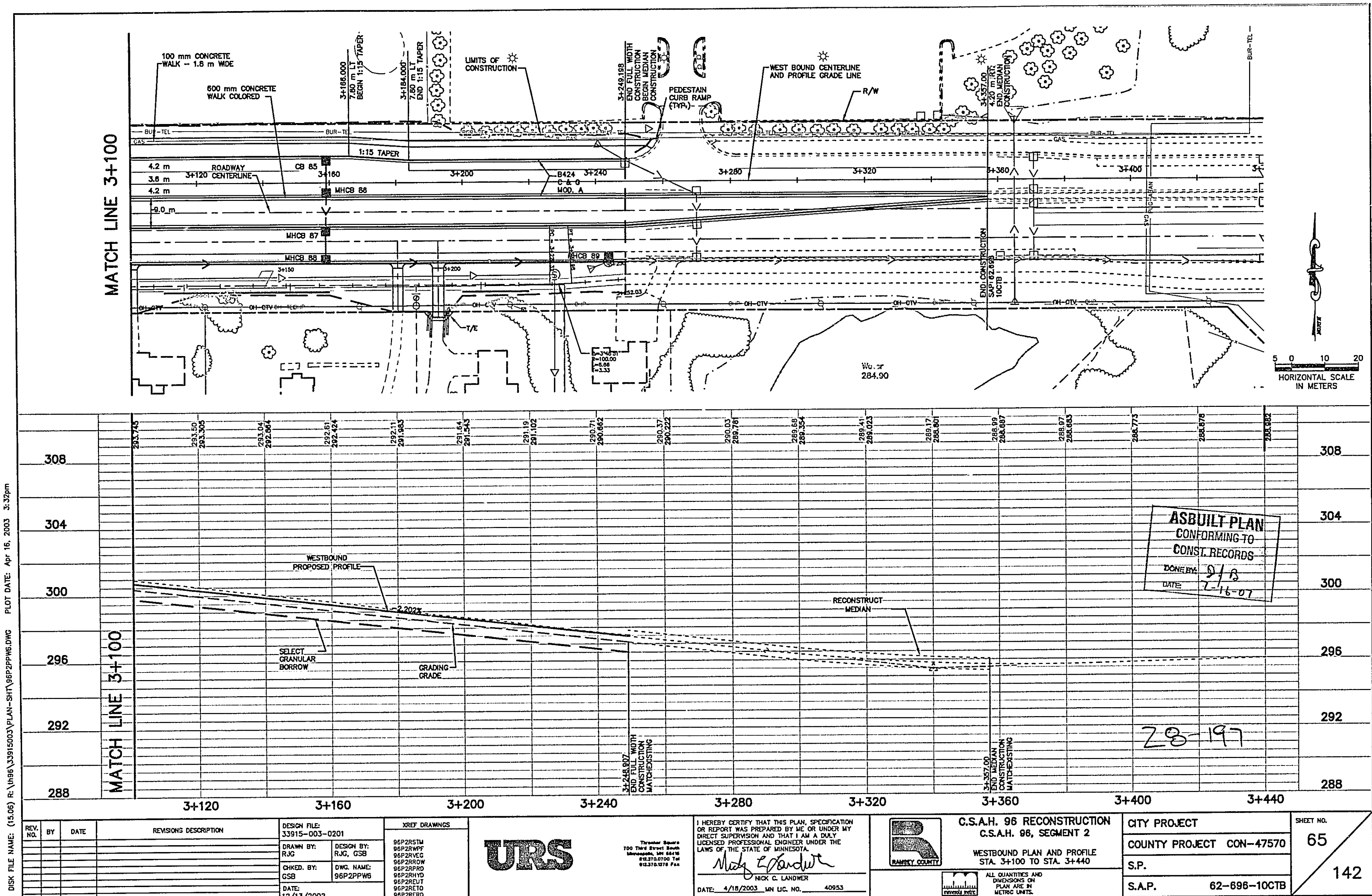
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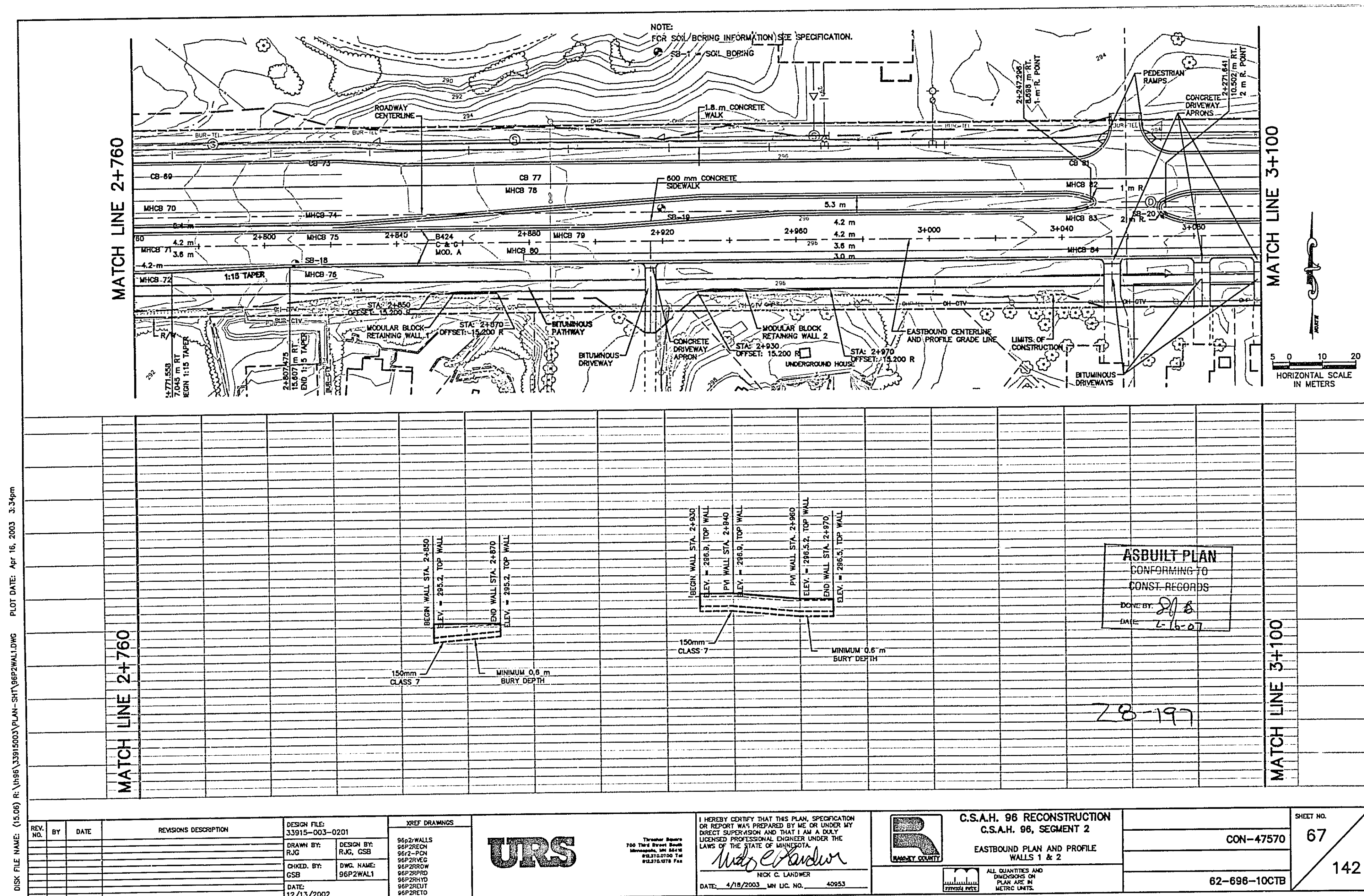
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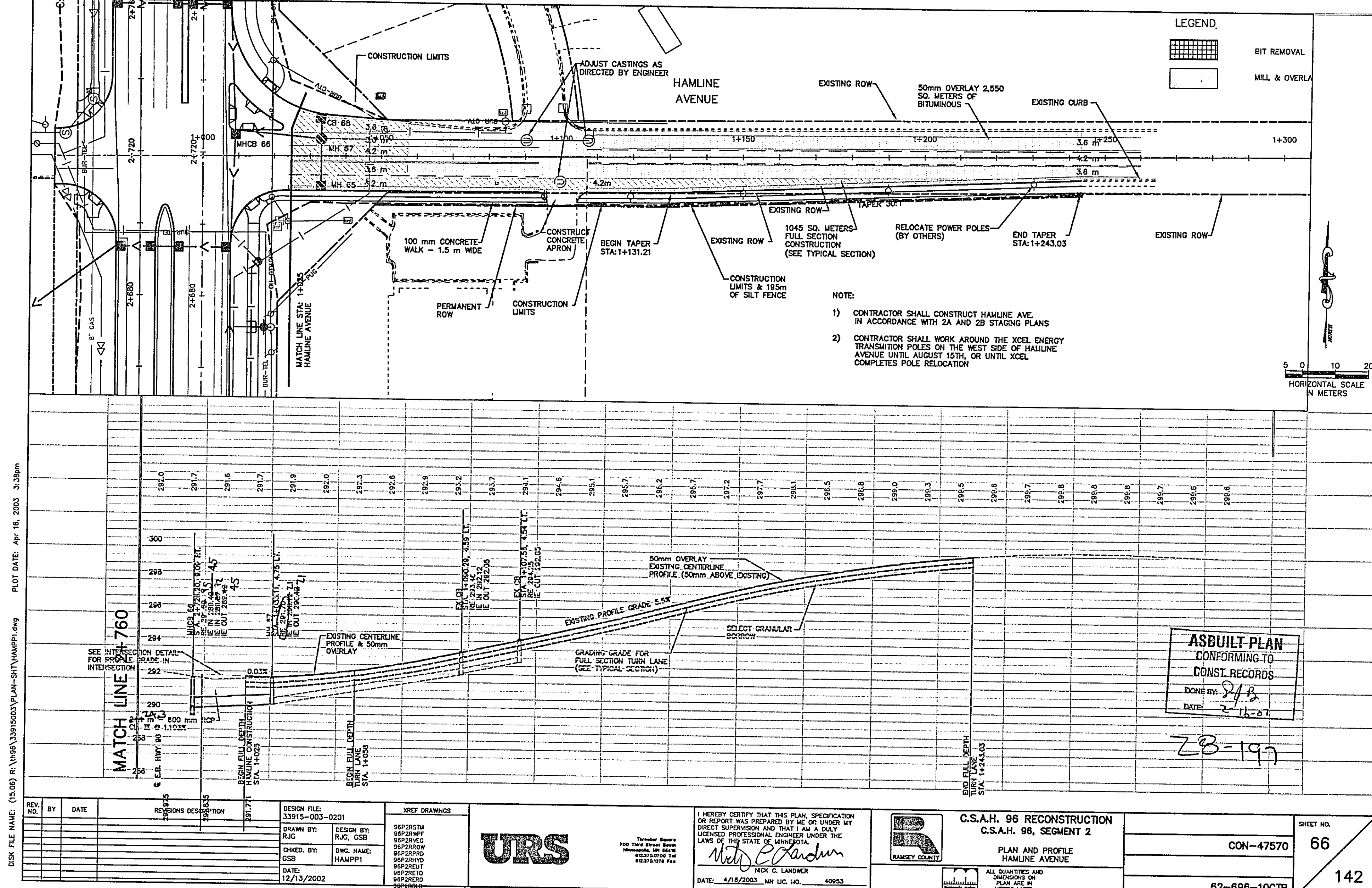
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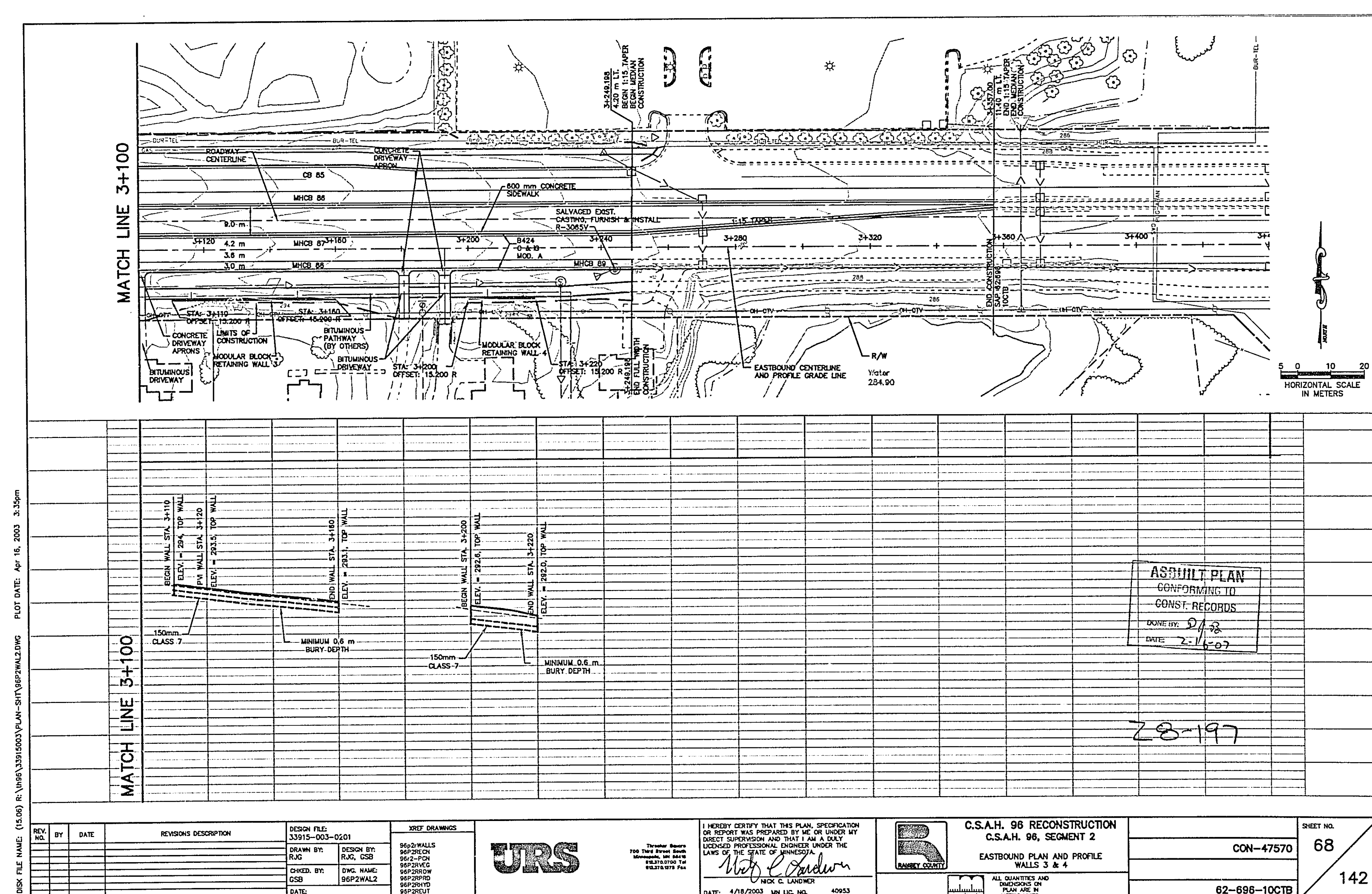
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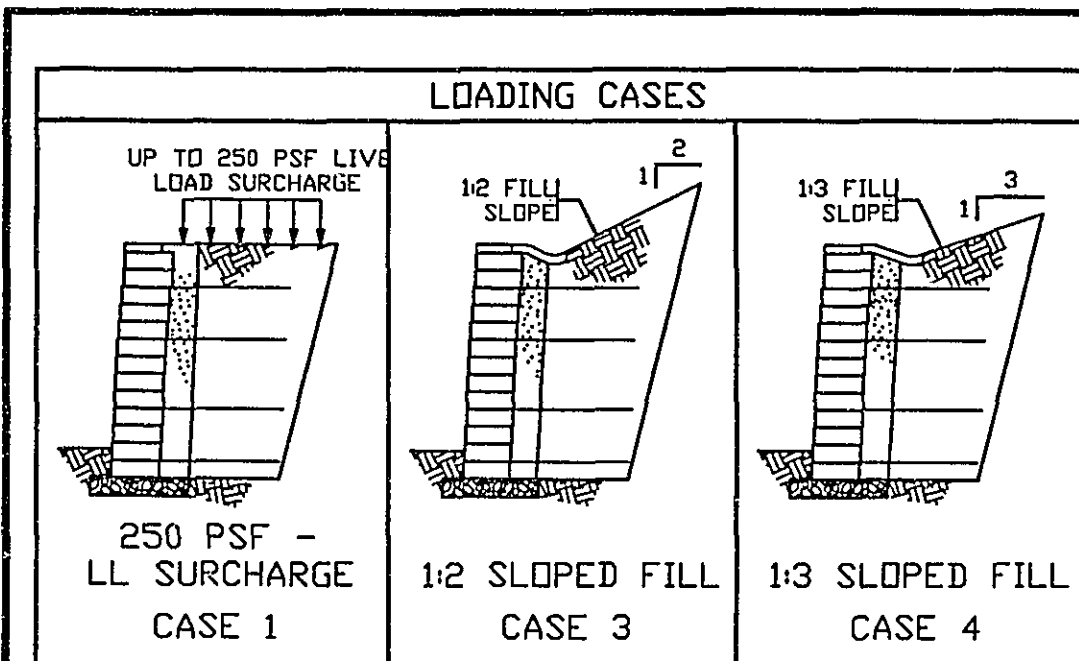


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DISK FILE NAME: (15.60) R:\VMS\33915003\PLAN-SHT\SP2P2P.DWG PLOT DATE: Apr 16, 2003 3:39pm





CASE 2 IS OMITTED INTENTIONALLY FOR FUTURE RECONSIDERATION

NOTES TO CONTRACTOR:

APPROVED COMBINATIONS OF MODULAR BLOCK UNIT AND SOIL REINFORCEMENT PRODUCTS LIST WITH MBW REINFORCEMENT CLASS NOTED ARE HELD AND MAINTAINED BY THE FOUNDATIONS UNIT, AND POSTED AT: www.nrrr.dot.state.nj.us/geotechnical/foundations/foundations.asp UNDER FOUNDATIONS UNIT - ONLY APPROVED PRODUCT COMBINATIONS, INCLUDING BLOCK PRODUCED FROM APPROVED SOURCES MEETING DURABILITY AND QUALITY CONTROL REQUIREMENTS, MAY BE USED IN STANDARD DESIGNS.

PROVIDE DETAILED DRAWINGS FOR CONSTRUCTION CONTAINING:

- SUBMIT, WITH THE DETAILED DRAWINGS, A COPY OF MB/DOT STANDARD SHEETS FOR LOADING CASES USED WITH OPTIONS USED MARKED IN THE TABLE.
- ELEVATION VIEW WITH REINFORCEMENT PLACEMENT REQUIREMENTS, WALL FACING LAYOUT, AND GEOMETRIC INFORMATION. TOP OF WALL MAY EXTEND UP TO 4" ABOVE PLAN TOP OF WALL ELEVATION.
- PLAN VIEW WITH BOTTOM AND TOP OF WALL ALIGNMENT, AND PLAN LIMITS OF WALL ALIGNMENT.

- CROSS SECTIONS DETAILING BATTER, REINFORCEMENT, VERTICAL SPACING, REINFORCEMENT LENGTHS, SUBSURFACE DRAINAGE, SURFACE DRAINAGE, AND WATER RUNOFF COLLECTION ABOVE WALL.
- REINFORCEMENT LAYOUT. REINFORCEMENT SHALL BE PLACED AT 100% COVERAGE RATIO. REINFORCEMENT ELEVATIONS SHALL BE CONSISTENT ACROSS LENGTH OF WALL STRUCTURE.

- NOTE BLOCK, REINFORCEMENT, AND FILL PLACEMENT METHODS AND REQUIREMENTS.

- DETAIL ALL WALL FILL PENETRATIONS AND WALL FACE PENETRATIONS. DETAIL REINFORCEMENT AND/OR WALL FACING UNIT PLACEMENT AROUND PENETRATIONS.

- DETAILS THAT ARE SPECIFIC TO VENDOR PRODUCTS AND THEIR INTERACTION WITH OTHER PROJECT COMPONENTS.

- LIST INFORMATION ON APPROVED COMBINATIONS OF MBW UNIT AND GEOSYNTHETIC REINFORCEMENT, INCLUDING MB/DOT SPECIFICATION CODE, NOMINAL BLOCK WIDTH, PROPERTIES FOR FIELD IDENTIFICATION, AND INSTALLATION INSTRUCTIONS.

- DETAILS OF CAP UNITS AND INSTALLATION/FASTENING INSTRUCTIONS FOR THE CAPS. CAP UNITS SHALL BE SET IN A BED OF FLEXIBLE DESIGNED TO WITHSTAND MOISTURE AND TEMPERATURE EXTREMES, REMAIN FLEXIBLE, AND SHALL BE SPECIFICALLY FORMULATED FOR BONDING MASONRY TO MASONRY.

- CERTIFICATION BY PROFESSIONAL ENGINEER THAT THE CONSTRUCTION LAYOUT MEETS THE REQUIREMENTS OF PLANS AND MB/DOT MSEW STANDARDS. ELEVATION STANDARD DESIGN SHEET IS FOR INFORMATION ONLY. VALUE ENGINEERING SUBMITTAL ONLY ON PROJECTS WITH OVER 5000 SQ. FT. OF WALL.

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DESIGN CRITERIA

DESIGN CRITERIA FOLLOWS THE AASHTO SPECIFICATION FOR HIGHWAY BRIDGES (6TH EDITION WITH 1998 INTERIMS) EXCEPT FOR THE DEVIATIONS NOTED BELOW. DESIGN CRITERIA ARE IN ACCORDANCE WITH MB/DOT POLICY, AS RECORDED IN THE MB/DOT ROAD DESIGN MANUAL. A. THE MINIMUM REINFORCEMENT LENGTH IS 4 FT. OR 0.75, WHICHEVER IS GREATER. B. THE REINFORCEMENT FILL FRICTION ANGLE IS 35°. C. THE ALLOWABLE CONNECTION LOAD, AT A GIVEN NORMAL LOAD, IS COMPARABLE AS THE LATERAL CONNECTION STRENGTH REDUCED BY A SAFETY FACTOR EQUAL TO 0.5. D. THE LATERAL EARTH PRESSURE COMPUTATION FOR EXTERNAL STABILITY CALCULATIONS USES AN INTERFACE ANGLE SET EQUAL TO THE RETAINED BACKFILL ANGLE. E. THE LATERAL EARTH PRESSURE COMPUTATION FOR INTERNAL STABILITY CALCULATIONS INCORPORATES THE EFFECTS OF WALL FACE BATTER.

MINIMUM FACTORS OF SAFETY: OVERTURNING: 2.0 SLIDING: 1.5 ECD: 1.5 BEARING CAPACITY: 2.5 DEEP SEATED STABILITY: 1.3

BEARING: A. SEE FOUNDATION REPORT FOR ALLOWABLE SOIL BEARING PRESSURE. B. CASES 1 AND 4 - ALLOWABLE SOIL BEARING CAPACITY ULTIMATE BEARING CAPACITY REDUCED BY A SAFETY FACTOR OF 2.5 OF 2000 PSF IS REQUIRED FOR WALLS UP TO 10 FT. IN HEIGHT. FOR WALLS GREATER THAN 10 FT. IN HEIGHT, THE REQUIRED ALLOWABLE BEARING CAPACITY IS EQUAL TO 2000 PSF + (40-1000 PSF) WITH H IN FEET. C. CASE 3 - ALLOWABLE SOIL BEARING CAPACITY ULTIMATE BEARING CAPACITY REDUCED BY A SAFETY FACTOR OF 2.5 OF 2500 PSF IS REQUIRED FOR WALLS UP TO 10 FT. IN HEIGHT. FOR WALLS GREATER THAN 10 FT. IN HEIGHT, THE REQUIRED ALLOWABLE BEARING CAPACITY IS EQUAL TO 2500 PSF + (40-10000 PSF) WITH H IN FEET.

REINFORCED WALL FILL CHARACTERISTICS: A. SELECT GRANULAR BORROW MODIFIED FOLLOWING SPEC. 3149.2B2. MODIFICATION SELECT GRANULAR BORROW MODIFIED, FOR SPECIAL USES (EMERGENCY OR BACKFILL CONSTRUCTION OR OTHER SPECIALIZED USES) MAY BE USED FOR 10% OF THE TOTAL VOLUME OF THE MATERIAL. THAT IS GRADED FROM COARSE TO FINE, SUCH THAT 100% OF THE MATERIAL MUST PASS THE 2" SIEVE, AND THAT THE RATIO OF THE PORTION PASSING THE #20 SIEVE DIVIDED BY THE PORTION PASSING THE 1" SIEVE MAY NOT EXCEED 100 BY MASS THAT IS 15% RATIO. B. INTERNAL ANGLE OF FRICTION ϕ_v = 35°. C. COHESION (C) = 0. D. MOIST UNIT WEIGHT γ_v = 125 PSF.

COARSE FILTER AGGREGATE CHARACTERISTICS: A. COARSE FILTER AGGREGATE TO MEET SPEC. 3149.2H. INCIDENTAL, NO DIRECT PAYMENT WILL BE MADE.

RETAINED BACKFILL CHARACTERISTICS: A. INTERNAL ANGLE OF FRICTION ϕ_v = 30°. B. COHESION (C) = 0. C. MOIST UNIT WEIGHT γ_v = 120 PSF.

FOUNDATION SOILS CHARACTERISTICS: A. INTERNAL ANGLE OF FRICTION ϕ_v = 30°. B. COHESION (C) = 0. C. MOIST UNIT WEIGHT γ_v = 120 PSF.

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NOTES TO DESIGNER:

HEIGHT AND LOCATION RESTRICTIONS FOR ISSUES SUCH AS FREEZE-THAW DURABILITY ARE GOVERNED BY APPROPRIATE TECHNICAL MEMORANDUMS. CURRENT GOVERNING TECH. MEMO NO. 01-05-NRR-01. IN ADDITION TO THE STANDARD SECTIONS, PLAN AND FRONT ELEVATION VIEWS OF THE MODULAR BLOCK RETAINING WALLS SHALL BE INCLUDED IN THE PLANS. THE PLAN VIEW MUST SHOW ALTERNATE ALIGNMENTS, LIMITS OF BOTTOM OF WALL ALIGNMENT, AND LIMITS OF TOP OF WALL ALIGNMENT AS ALIGNMENTS VARY WITH BATTER OF WALL SYSTEM ACTUALLY SUPPLIED. THE FRONT ELEVATION MUST IDENTIFY BOTTOM AND TOP OF WALL ELEVATIONS, EXISTING GRADES, AND FINISHED GRADES.

IF THE WALL IS CURVED, THE RADIUS AT THE BOTTOM AND THE TOP OF EACH WALL SEGMENT AND THE P.C. AND P.T. STATION POINTS OFF OF BASELINE AND LIMITS OF BOTTOM AND TOP OF WALL ALIGNMENT MUST BE SHOWN.

REFERENCE STANDARD PLATES AND PROVIDE DETAILS FOR TRAFFIC BARRIERS, CURB AND GUTTER, HANDRAILS AND FENCING AS REQUIRED BY PROJECT CONDITIONS. SEE AASHTO AND MB/DOT DESIGN MANUALS, STANDARD PLATES AND DETAILS FOR REQUIREMENTS.

SURFACE DRAINAGE PATTERNS SHALL BE SHOWN IN THE PLAN VIEW. PROVIDE DIMENSIONS FOR WIDTH AND DEPTH OF THE DRAINAGE SWALE AS WELL AS THE TYPE OF IMPERVIOUS LINER MATERIAL. SURFACE WATER RUNOFF SHOULD BE COLLECTED ABOVE AND DIVERTED AROUND WALL FACE.

DETAIL LINES AND GRADERS OF THE INTERNAL DRAINAGE COLLECTION PIPE. DETAIL ON NOTE THE DESTINATION OF INTERNAL WALL DRAINAGE AS WELL AS THE METHOD OF TERMINATION (W/OUTLET END OF PIPE OR CONNECTION INTO HYDRAULIC STRUCTURE). THE SPACING FOR DRAIN PIPE OUTLET SHALL NOT BE MORE THAN 250 FT.

SOFT SOILS AND/OR HIGH WATER CONDITIONS (DEFINED AS GROUNDWATER WITHIN A DEPTH EQUAL TO THE WALL HEIGHT) MAY NOT BE SUITABLE FOR APPLICATION OF STANDARD DESIGNS AND REQUIRE SPECIAL CONSIDERATION BY THE FOUNDATIONS UNIT.

STANDARD DESIGN CHARTS ARE NOT APPLICABLE TO: 1. PROJECT/SITES WHERE FOUNDATION SOILS BEAR STRENGTH AND/OR BEARING CAPACITY DO NOT MEET AND EXCEED VALUES USED IN THE DEVELOPMENT OF STANDARD DESIGN CHARTS. 2. PROJECTS WITH A LARGE QUANTITY OF FACE AREA WHERE PROJECT SPECIFIC DESIGNS ARE RECOMMENDED AND AS DEFINED IN MB/DOT ROAD DESIGN MANUAL. 3. WHERE SLOPES IN FRONT OF WALL ARE STEEPER THAN 1:3. 4. WHERE WALLS ARE TIERED. 5. WHERE WALLS HAVE BATTER.

IF USING CONCRETE RAILING, INCLUDE STANDARD BRIDGE DETAIL "CONCRETE RAILING (TYPE F)" IN PLAN SET.

PROVIDE PROJECT SPECIFIC AESTHETIC REQUIREMENTS INCLUDING COLOR AND FASCIA SURFACING IN THE SPECIAL PROVISIONS.

CHAPTER 9 OF THE MB/DOT "ROAD DESIGN MANUAL" CONTAINS GUIDELINES, TRAFFIC SAFETY AND OTHER ASPECTS.

GENERAL NOTES: UTILITIES: EXISTING AND PROPOSED UTILITIES ARE SHOWN IN THE GRADING PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES AND SHALL EXERCISE CARE IN ADJACENT CONSTRUCTION.

EXCAVATION AND EARTHWORK: ALL EXCAVATION AND EMBANKMENT WORK SHALL CONFORM TO MB/DOT 2451.

CAST-IN-PLACE CONCRETE: ALL CONCRETE SHALL CONFORM TO MB/DOT 2461, EXCEPT AS NOTED.

CONSTRUCTION: CONSTRUCTION SHALL BE IN ACCORDANCE WITH MB/DOT 2411, EXCEPT AS NOTED.

GEOMETRICS AND GRADES: DATA FOR BASELINE GEOMETRY IS TABULATED FOR WALL ALIGNMENT. SEE LAYOUT SHEETS. WALL ALIGNMENT REFERENCE IS ALONG FRONT FACE OF WALL.

THE FILL SLOPE CONVENTION OF 1 VERTICAL TO HORIZONTAL IS USED IN THIS PLAN.

CONSTRUCTION REQUIREMENTS: COMPACT REINFORCED WALL FILL IN ACCORDANCE WITH MB/DOT SPEC. 2105.371 UNLESS RECOMMENDED OTHERWISE BY THE SOILS ENGINEER.

NEW WALL: COMPACT GRANULAR BEDDING IN ACCORDANCE WITH MB/DOT SPEC. 2105.371 UNLESS RECOMMENDED OTHERWISE BY THE SOILS ENGINEER.

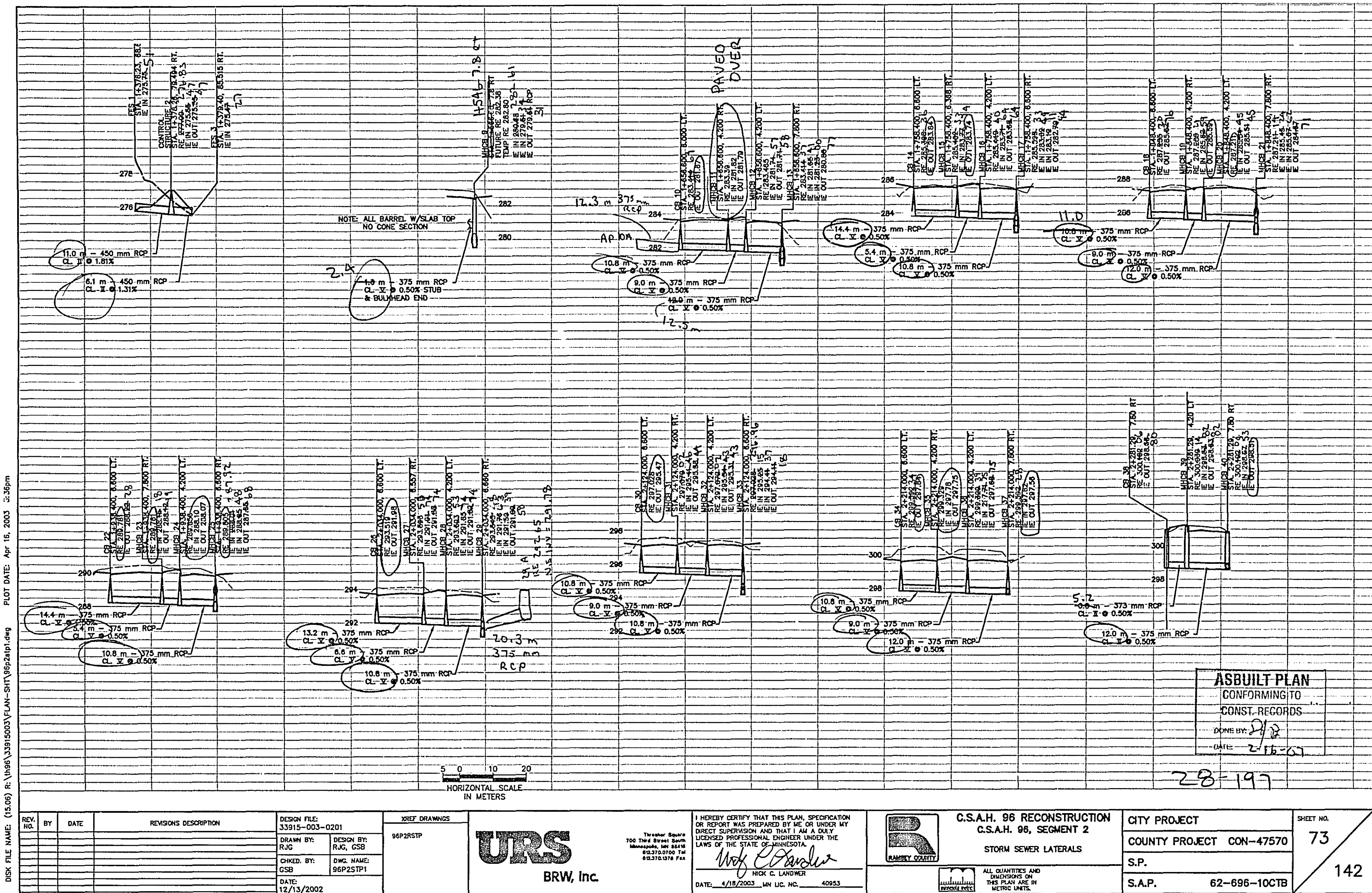
CONFORMING TO CONST. RECORDS

DATE: 2-16-07

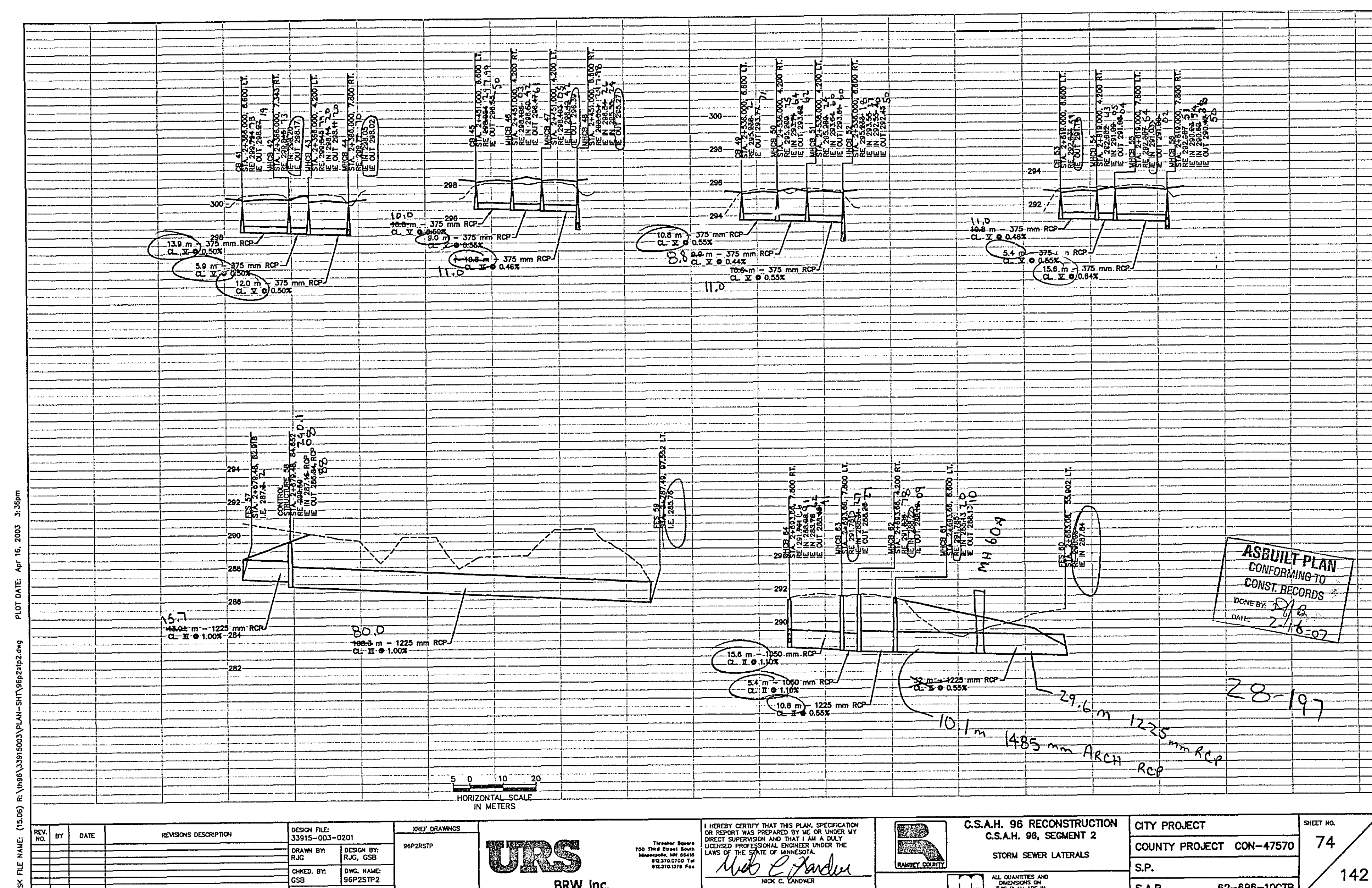
28-197

STATE PROJ. NO. 5-297.640

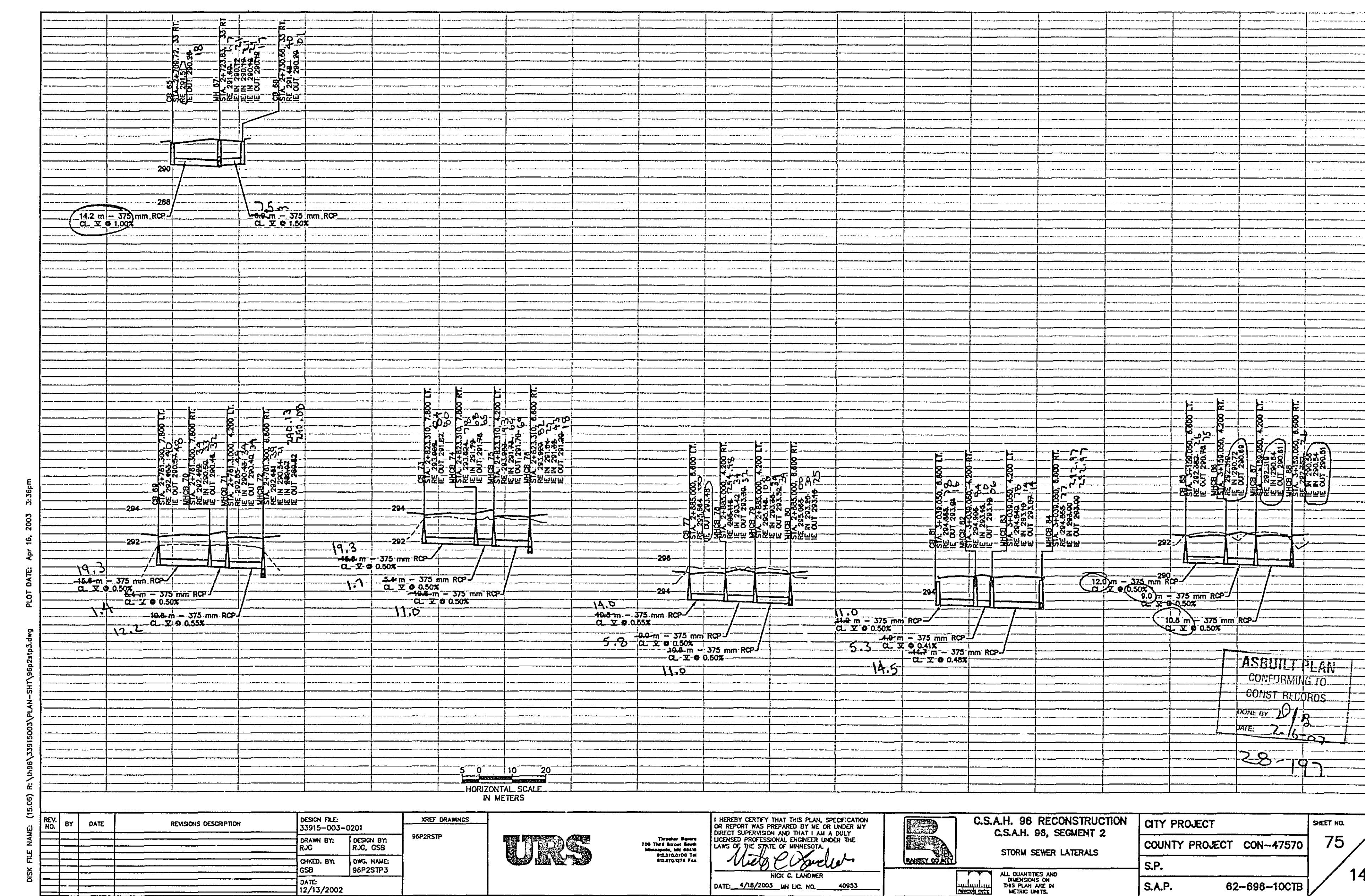
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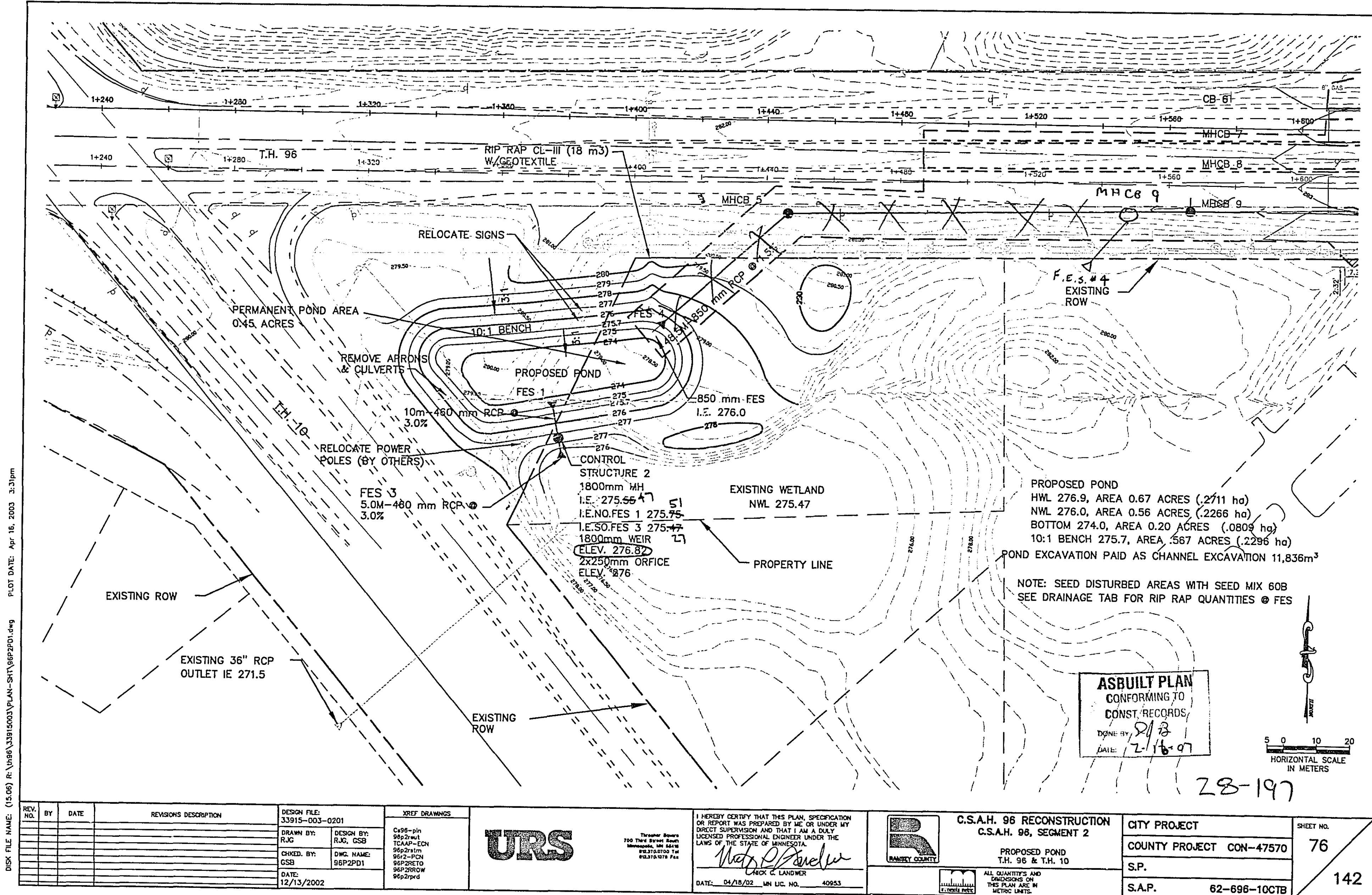
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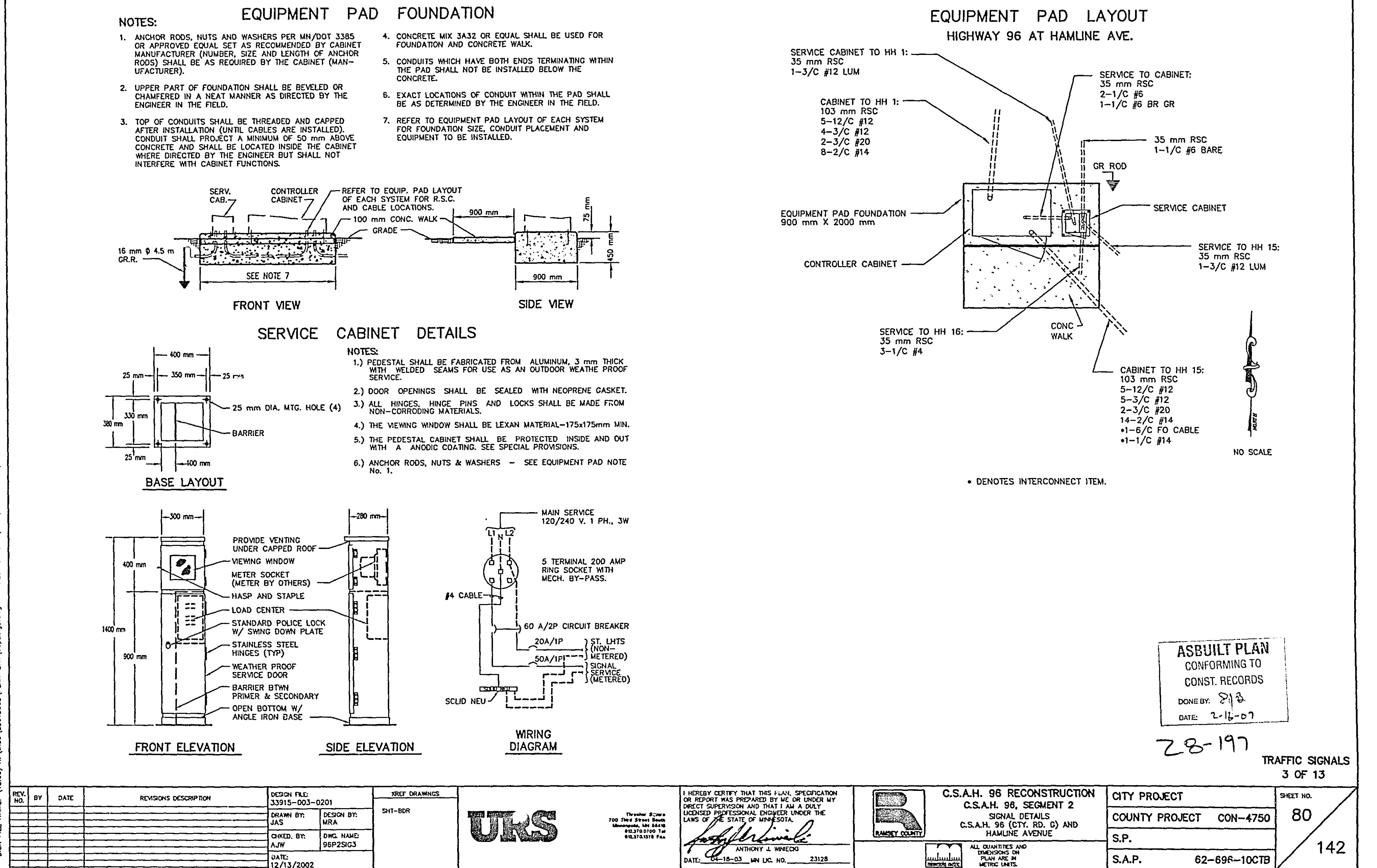
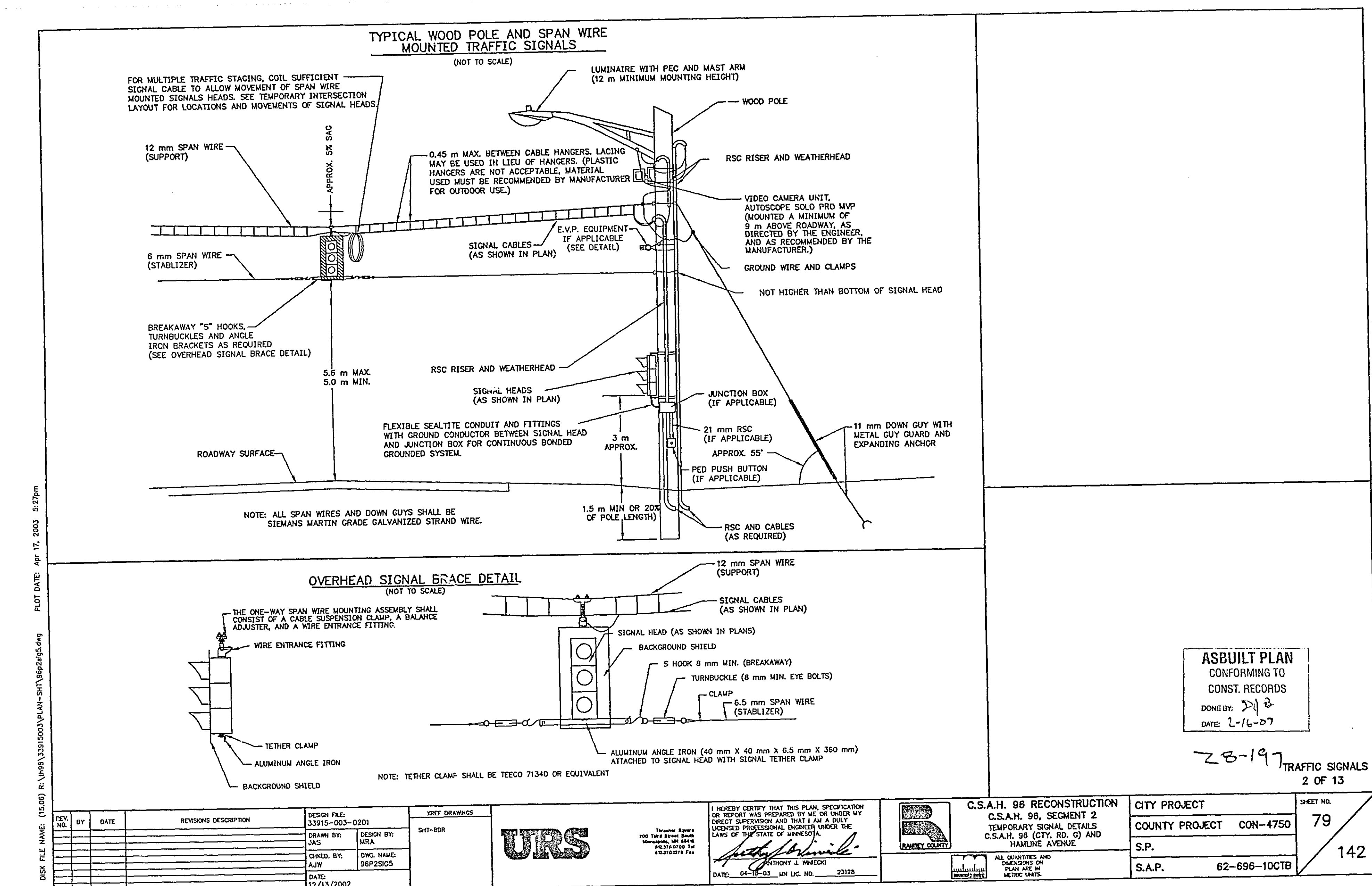
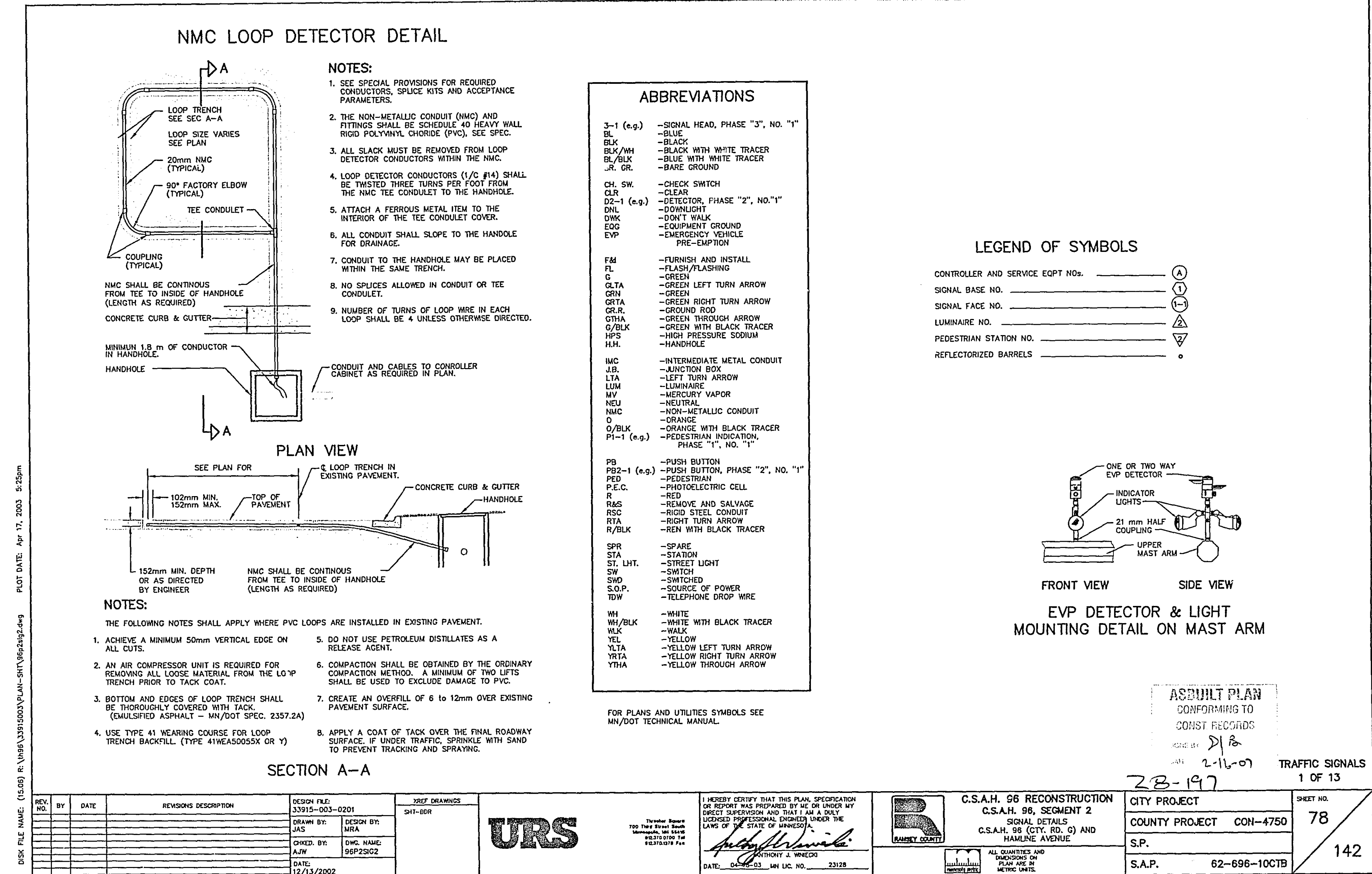
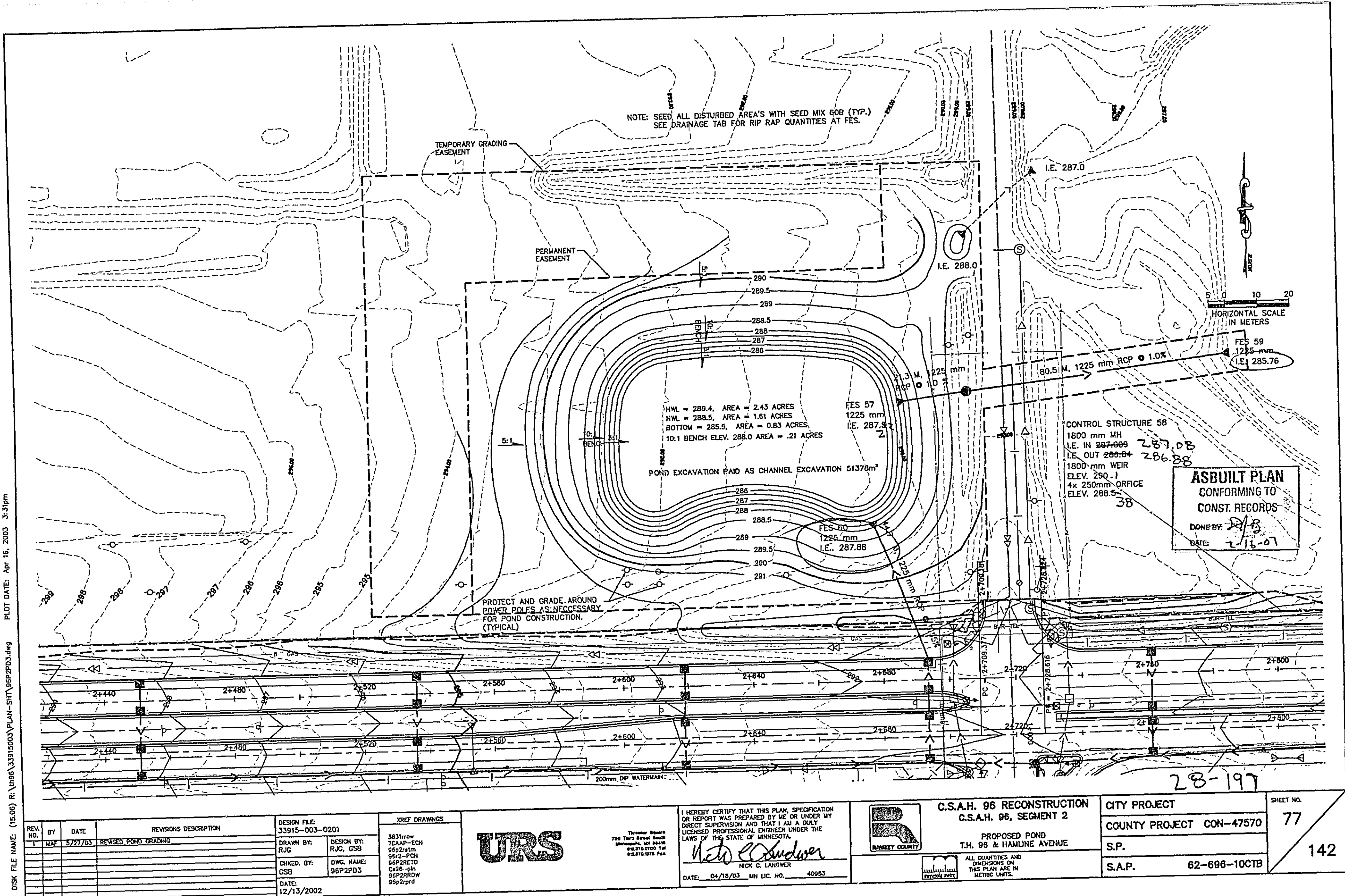


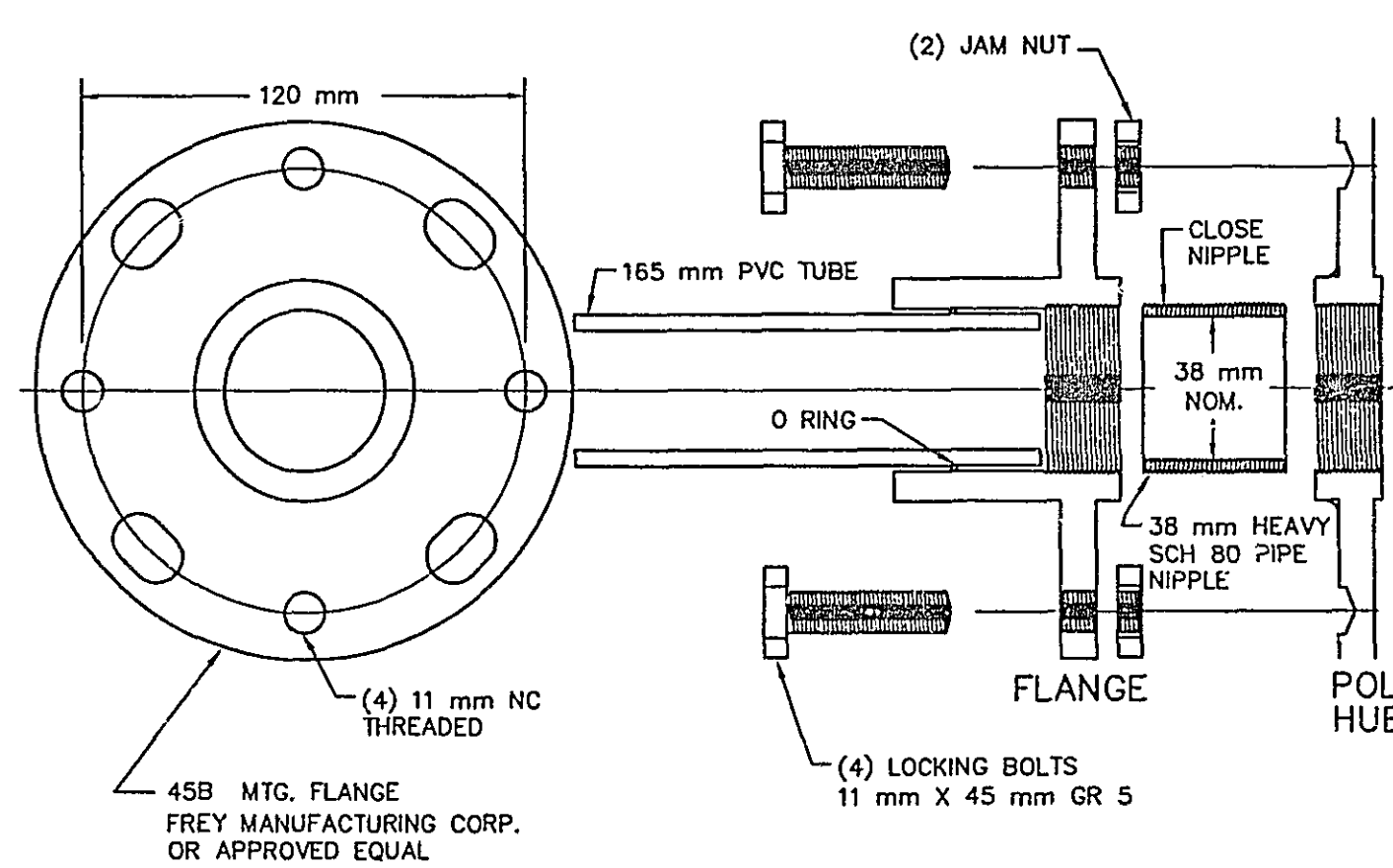
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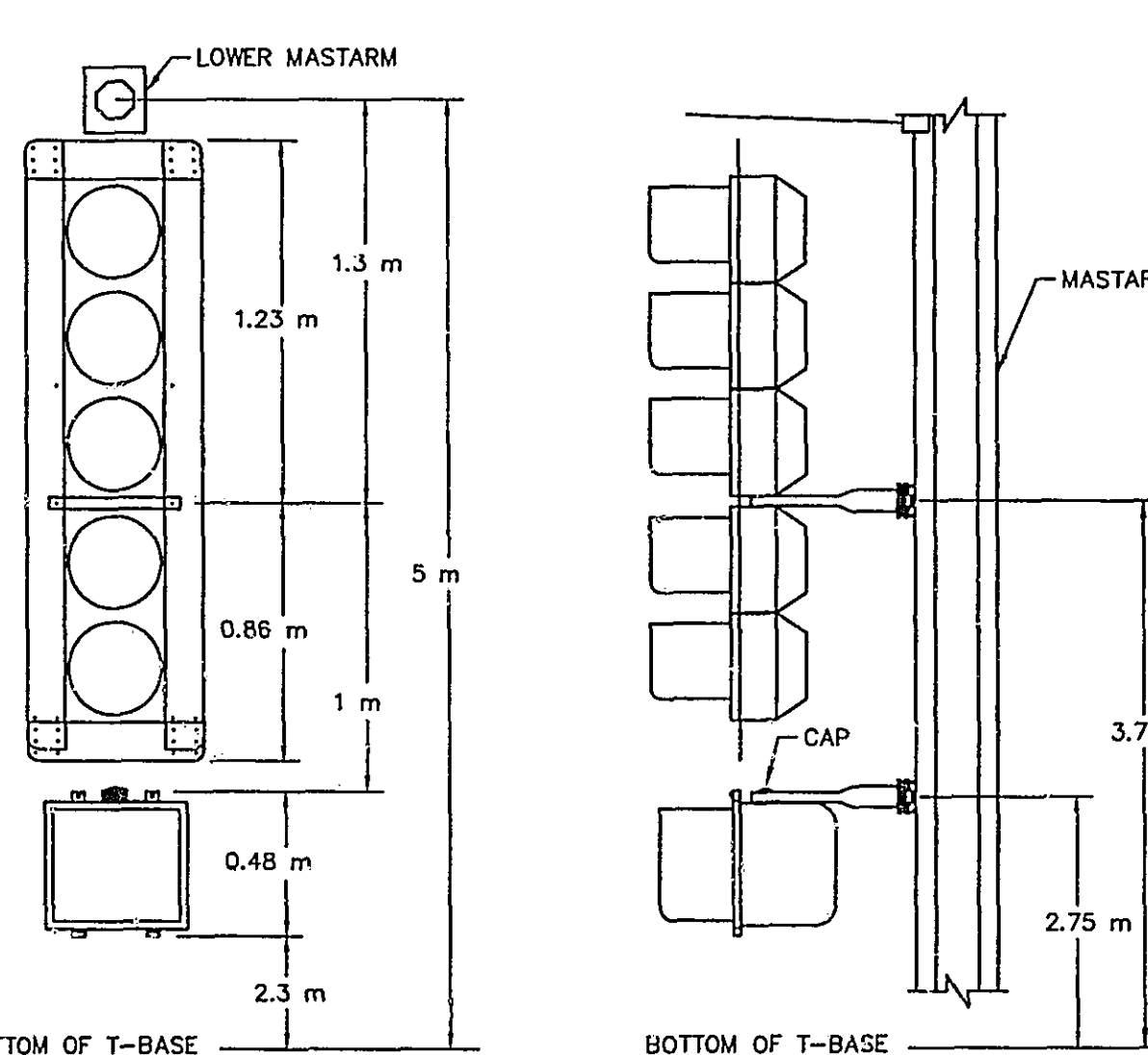
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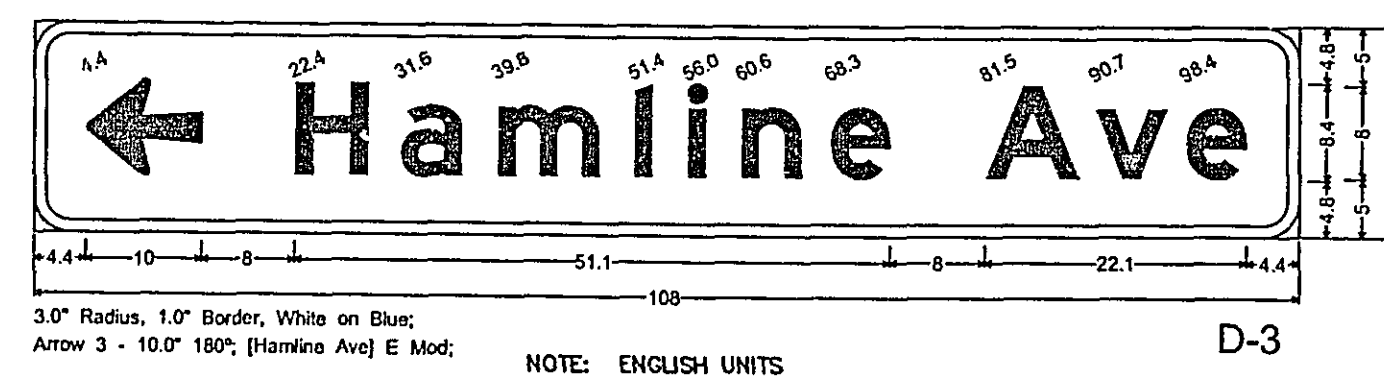




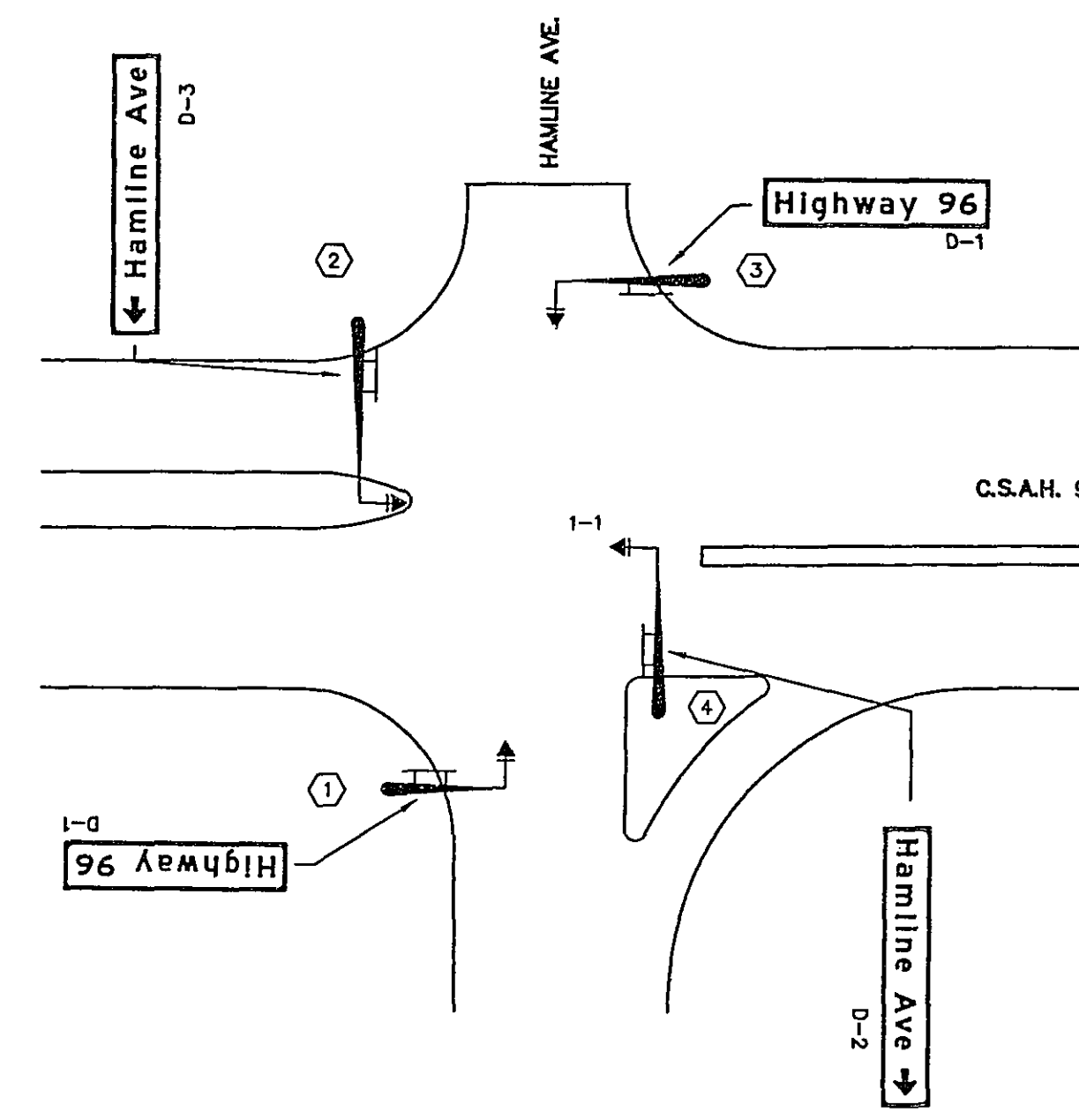
1. ALL THREADED SURFACES TO BE COATED WITH ANTI-SEIZE COMPOUND.



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NOTE: ENGLISH UNITS

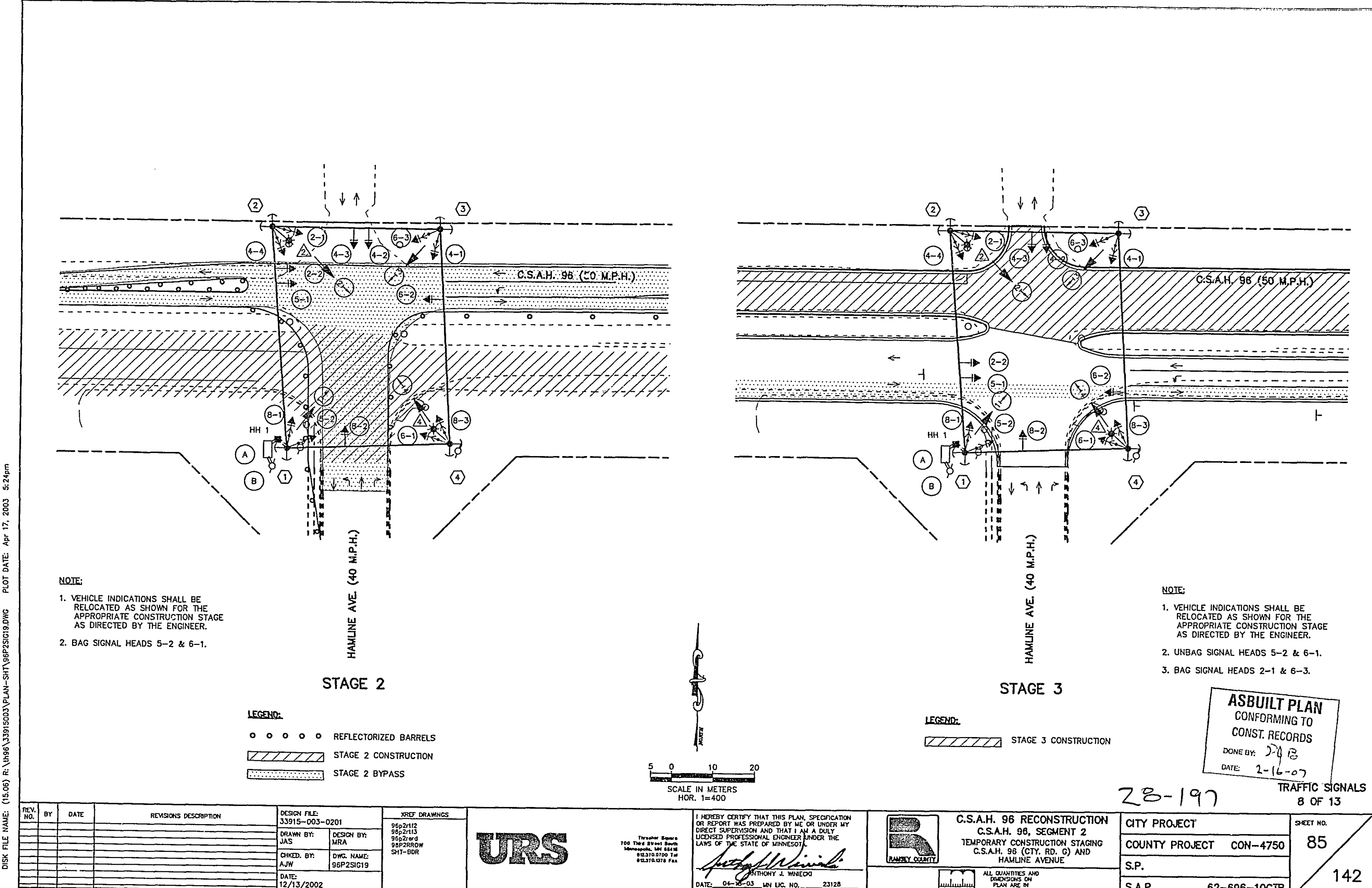


HIGHWAY 96 AT HAMLINE AVE.

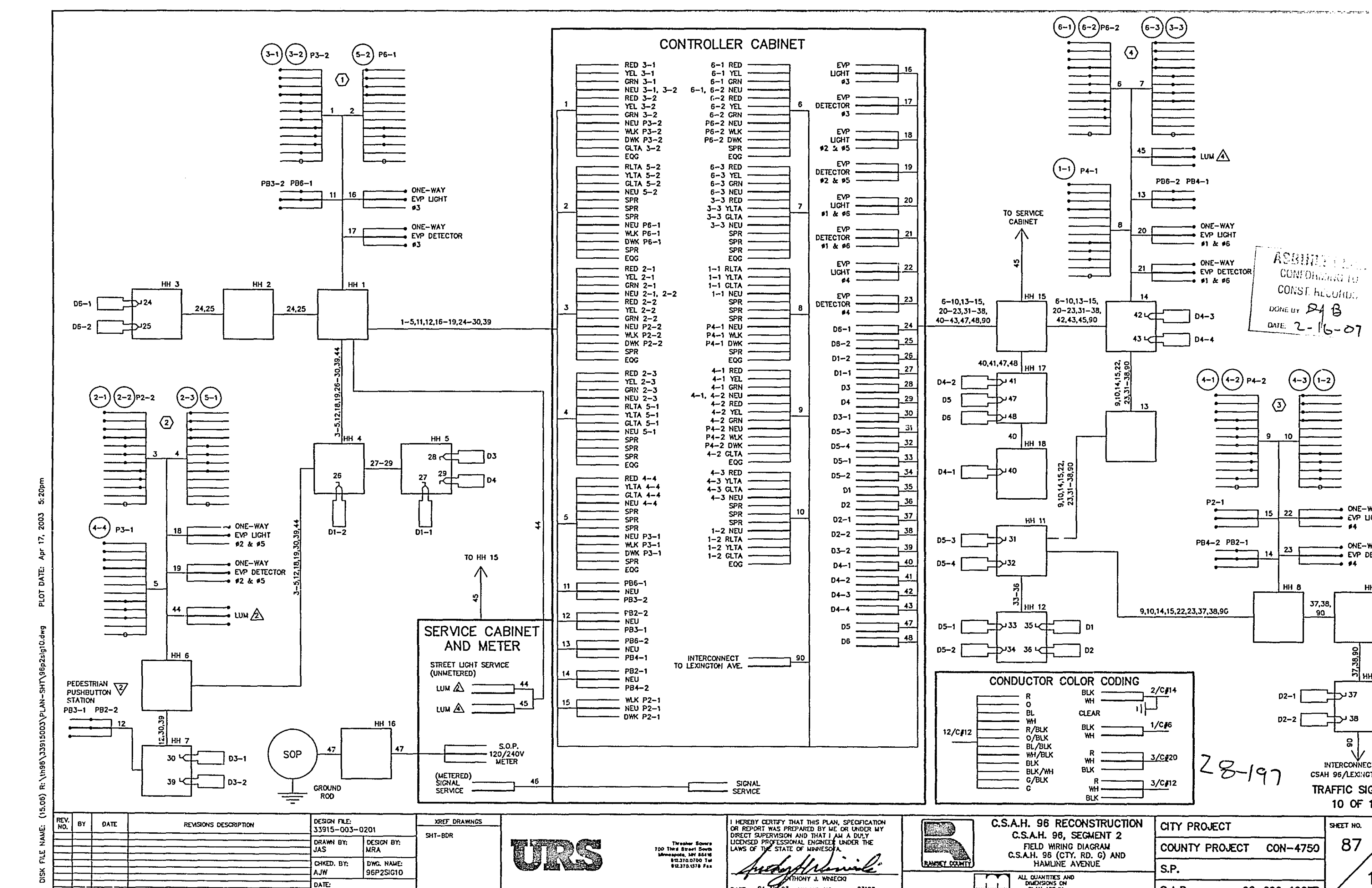
1. COLOR - WHITE LEGEND AND BORDER ON BLUE BACKGROUND.
FULLY RELECTORIZED WITH PRISMATIC LENS REFLECTIVE SHEETING.
2. CORNERS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
3. SEE STANDARD SIGNS MANUAL FOR ARROW AND OVERLAY DETAILS.
4. FOR STRUCTURAL DETAILS, TYPE "D" SIGNS, SEE SPECIAL PROVISIONS
5. THIS SHEET IS IN ENGLISH UNITS.

28-197

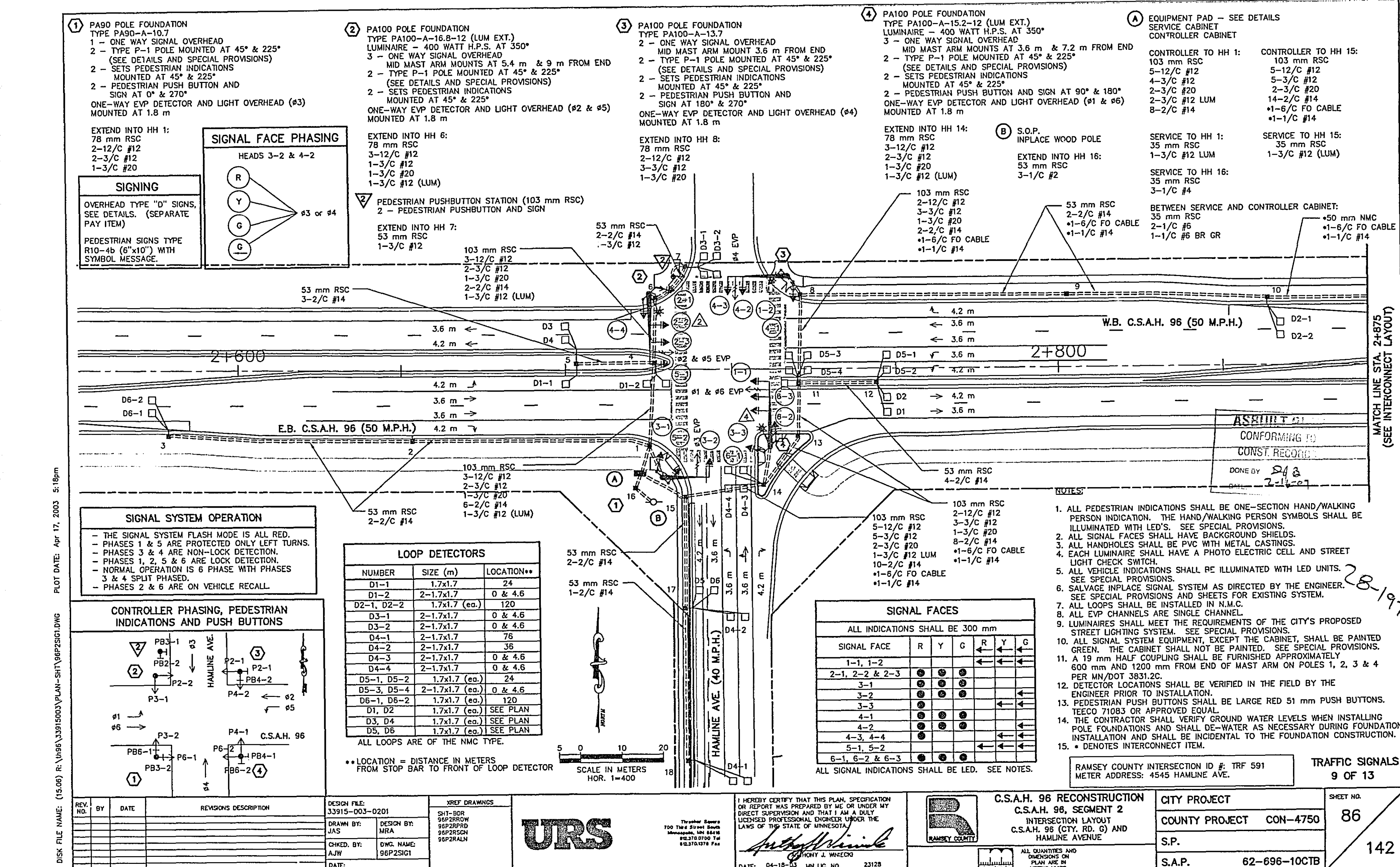
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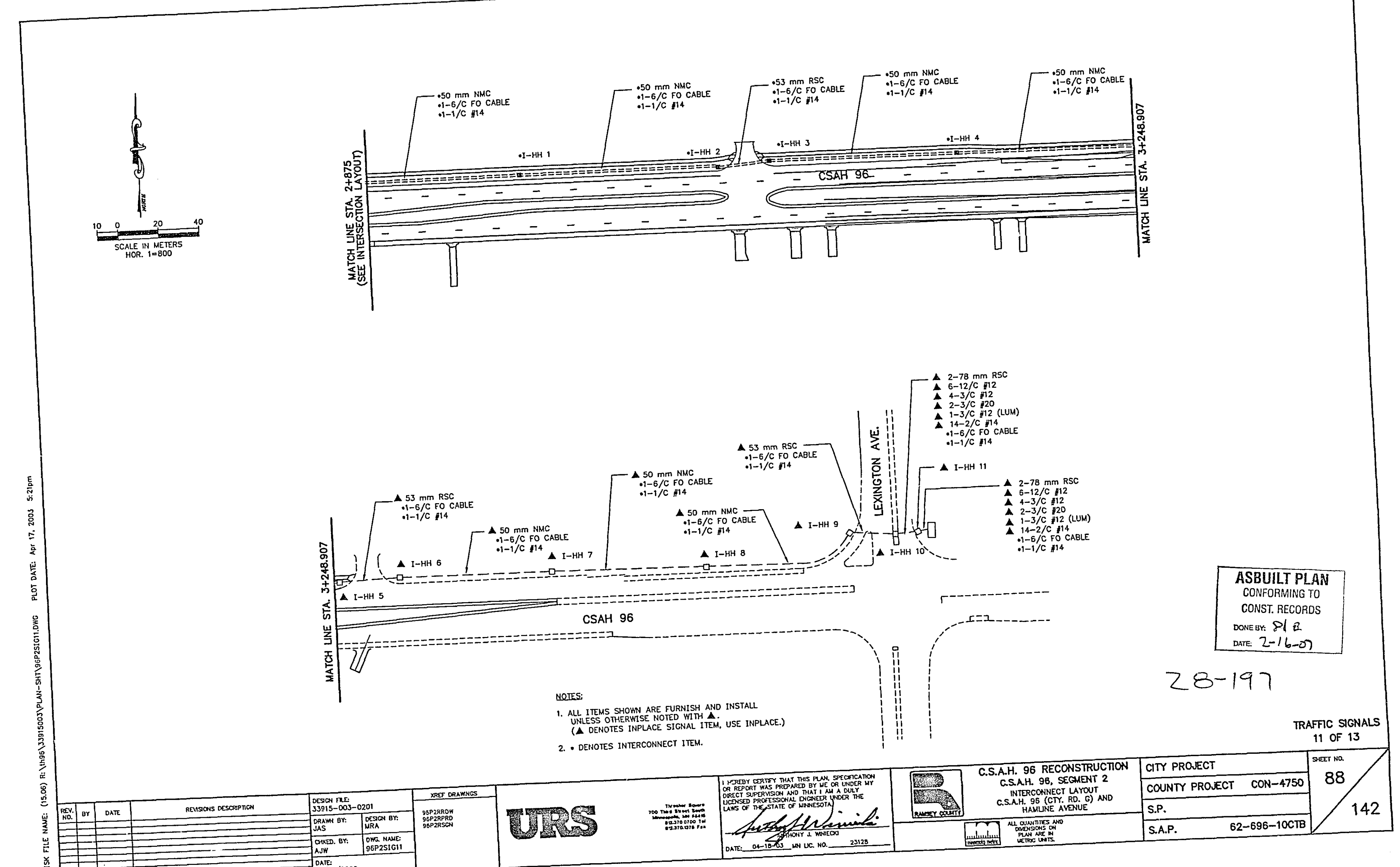
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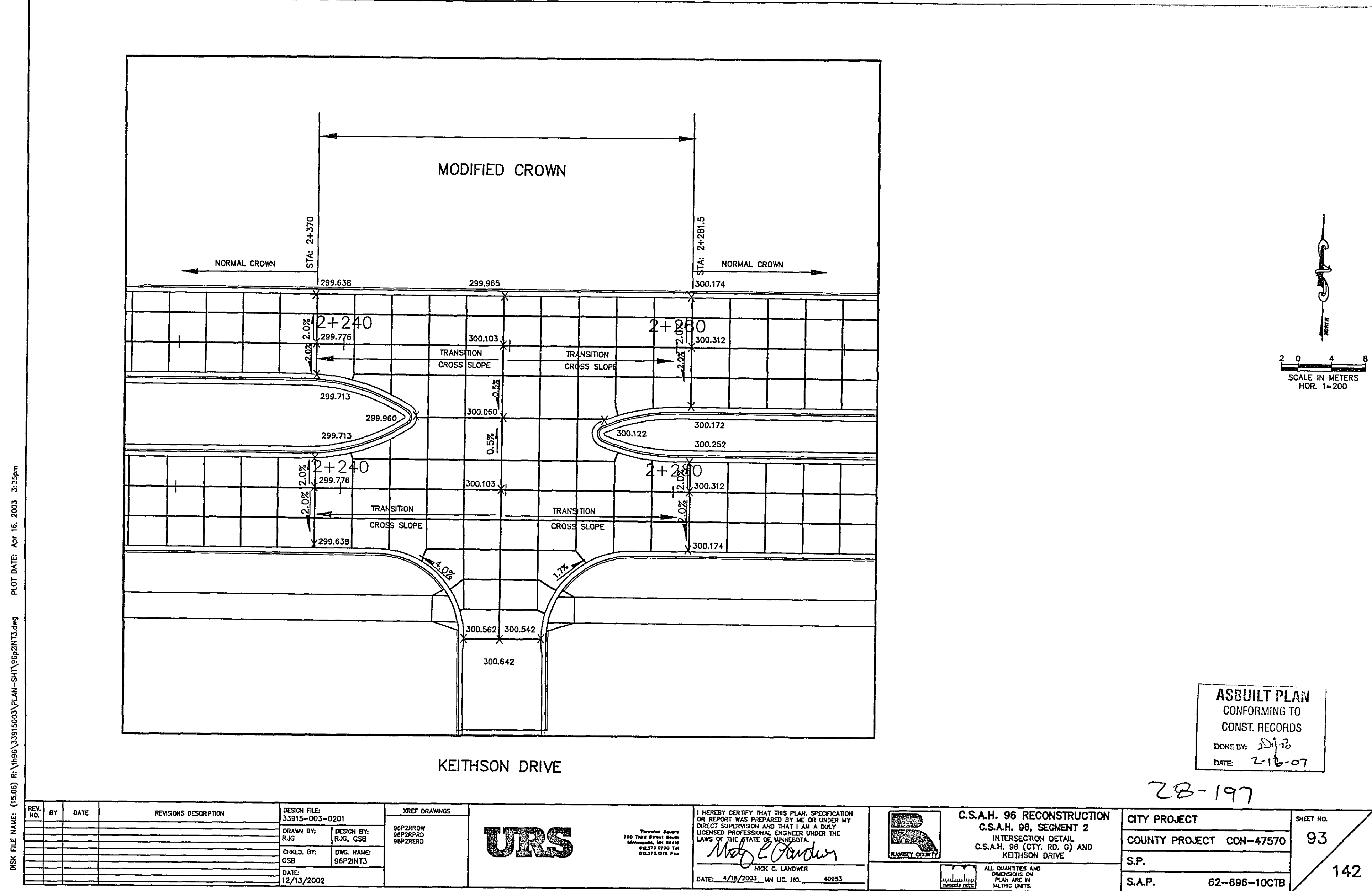
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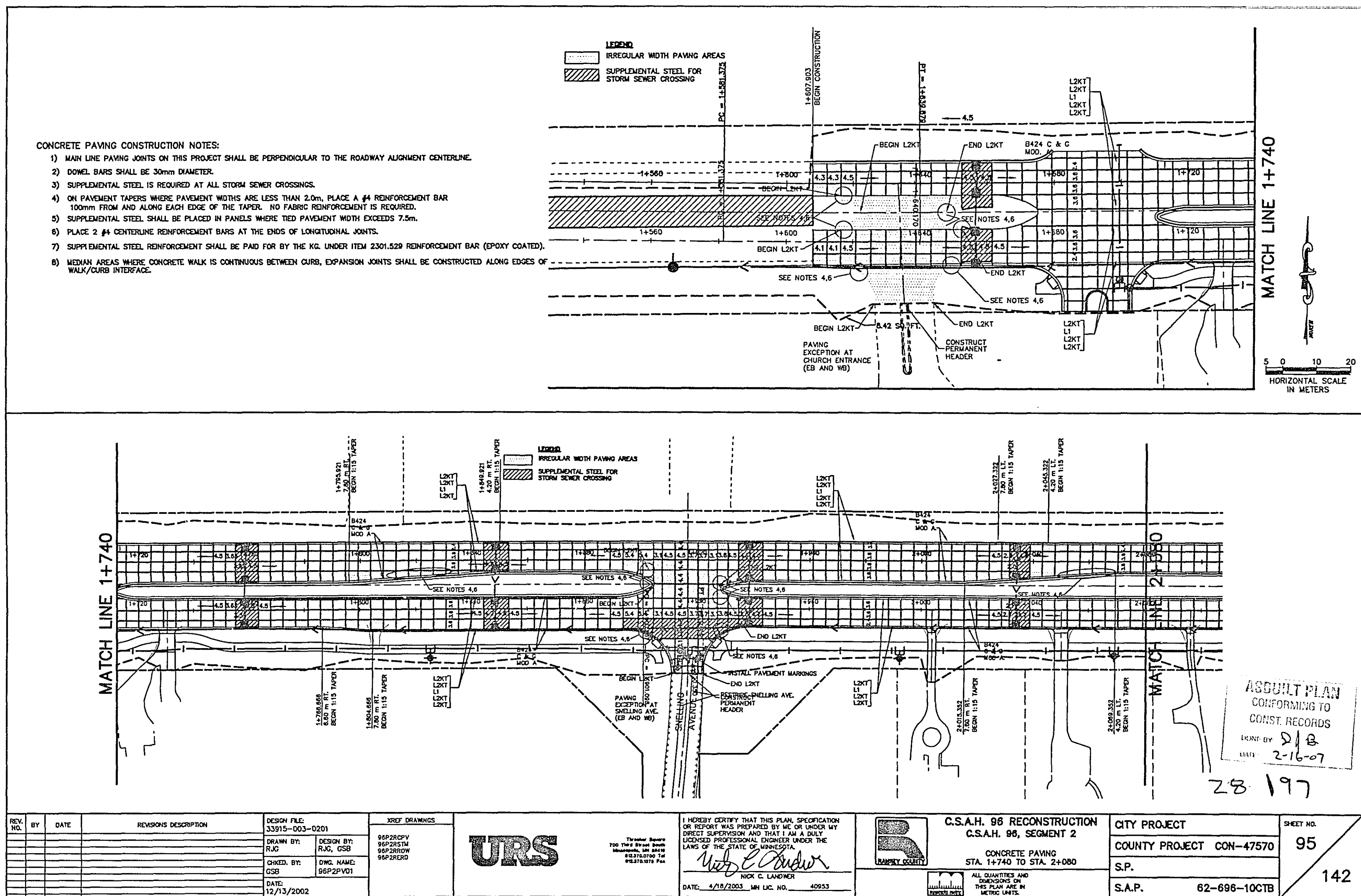
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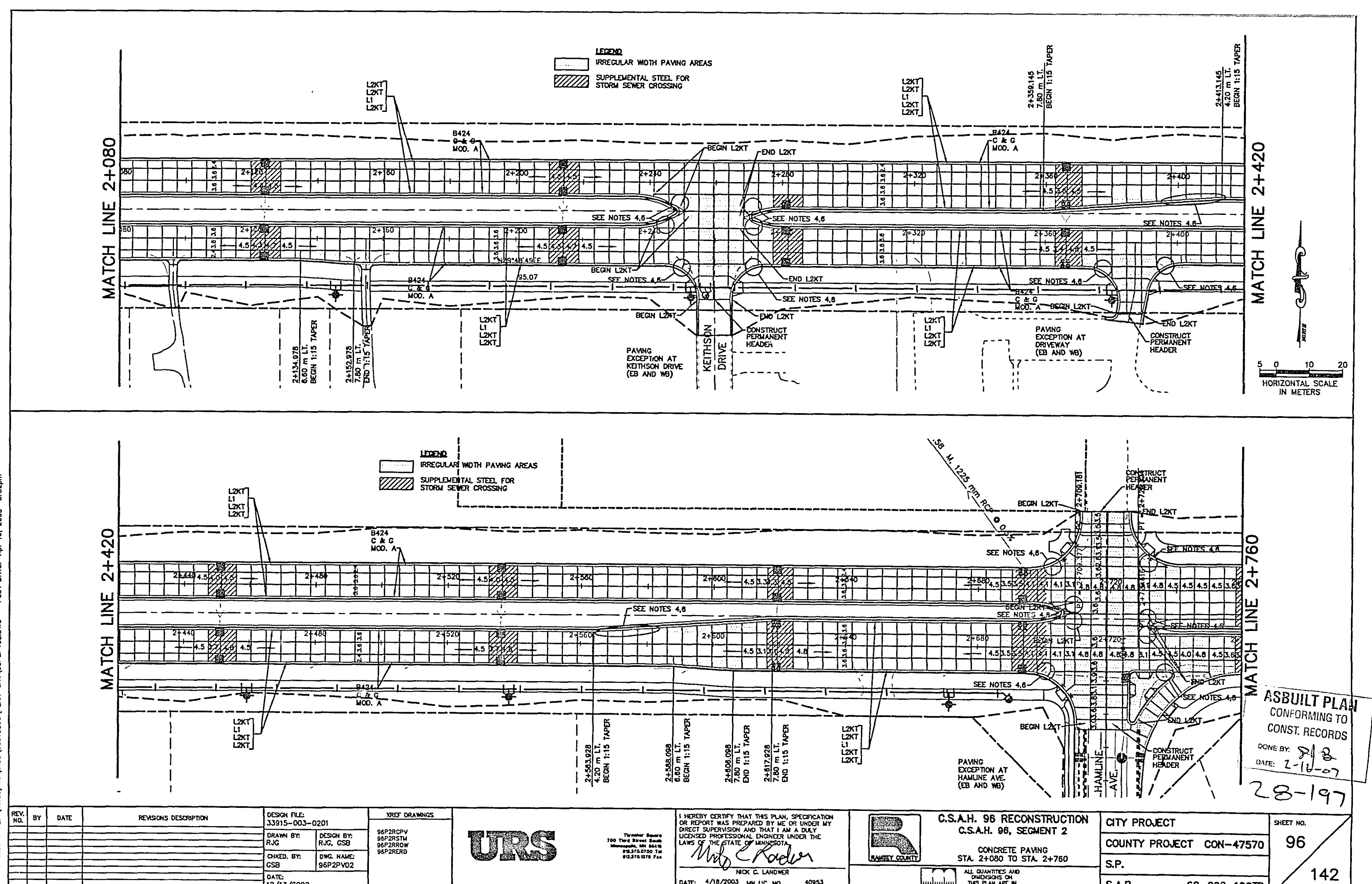
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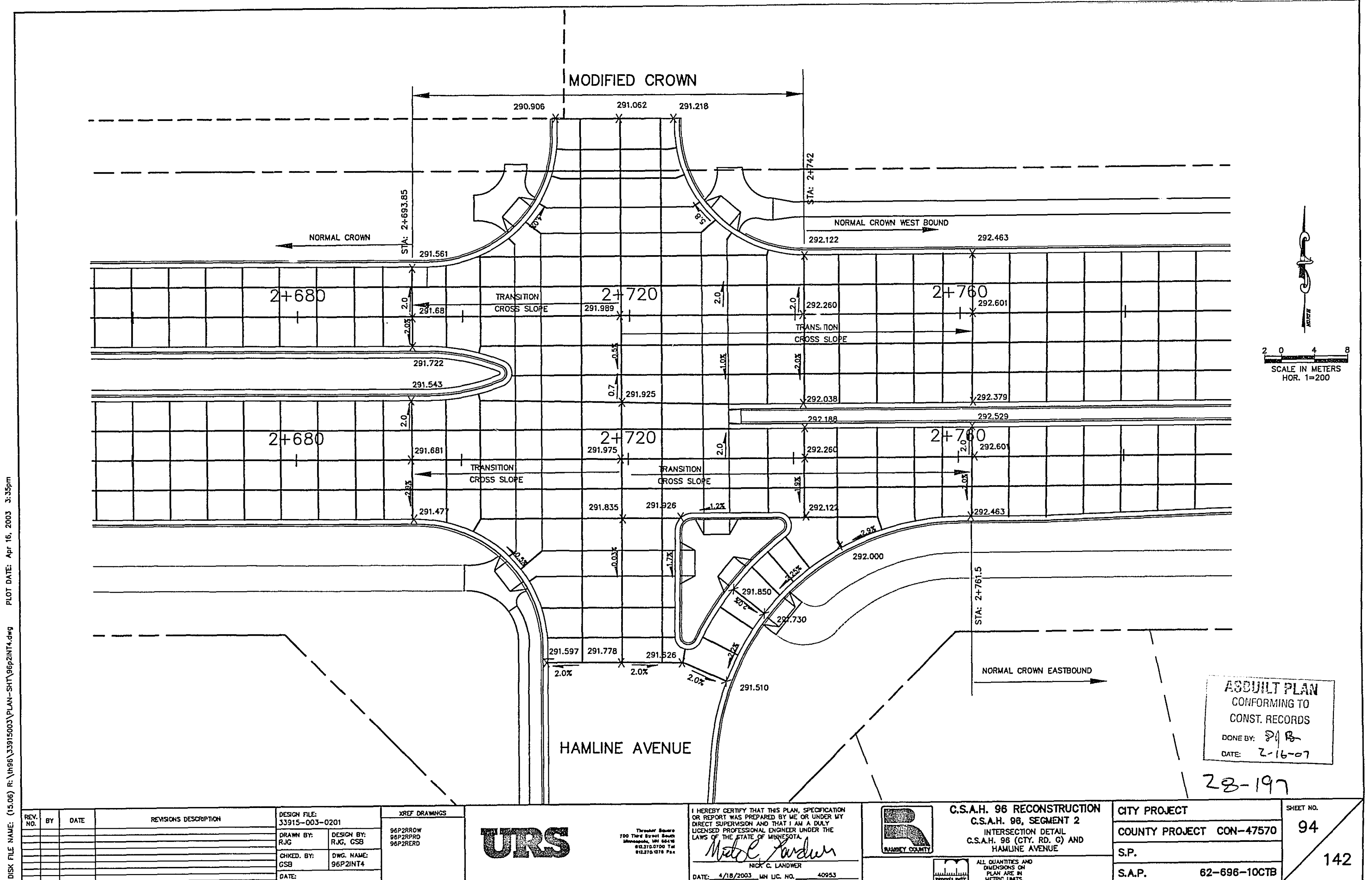
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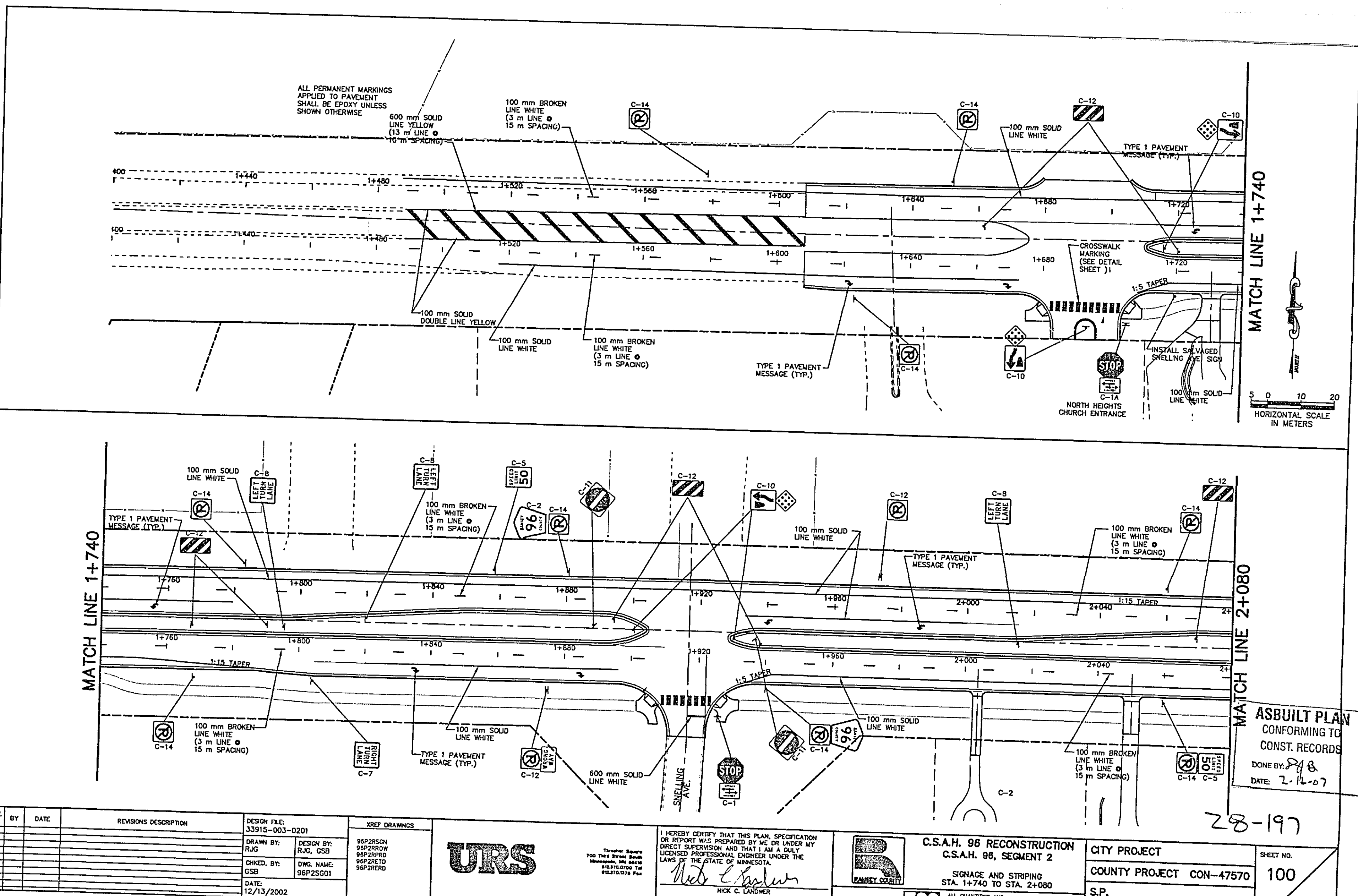
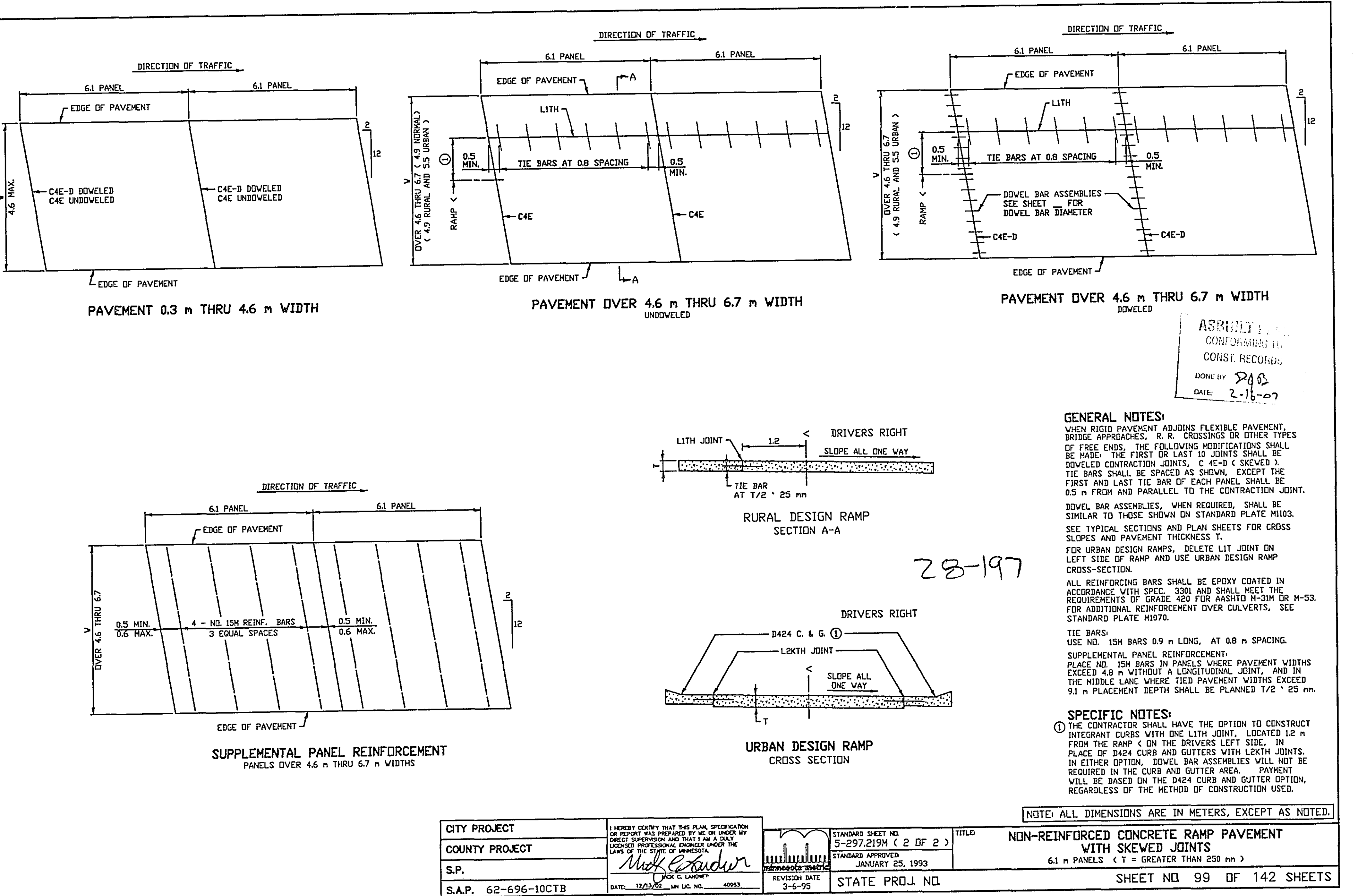
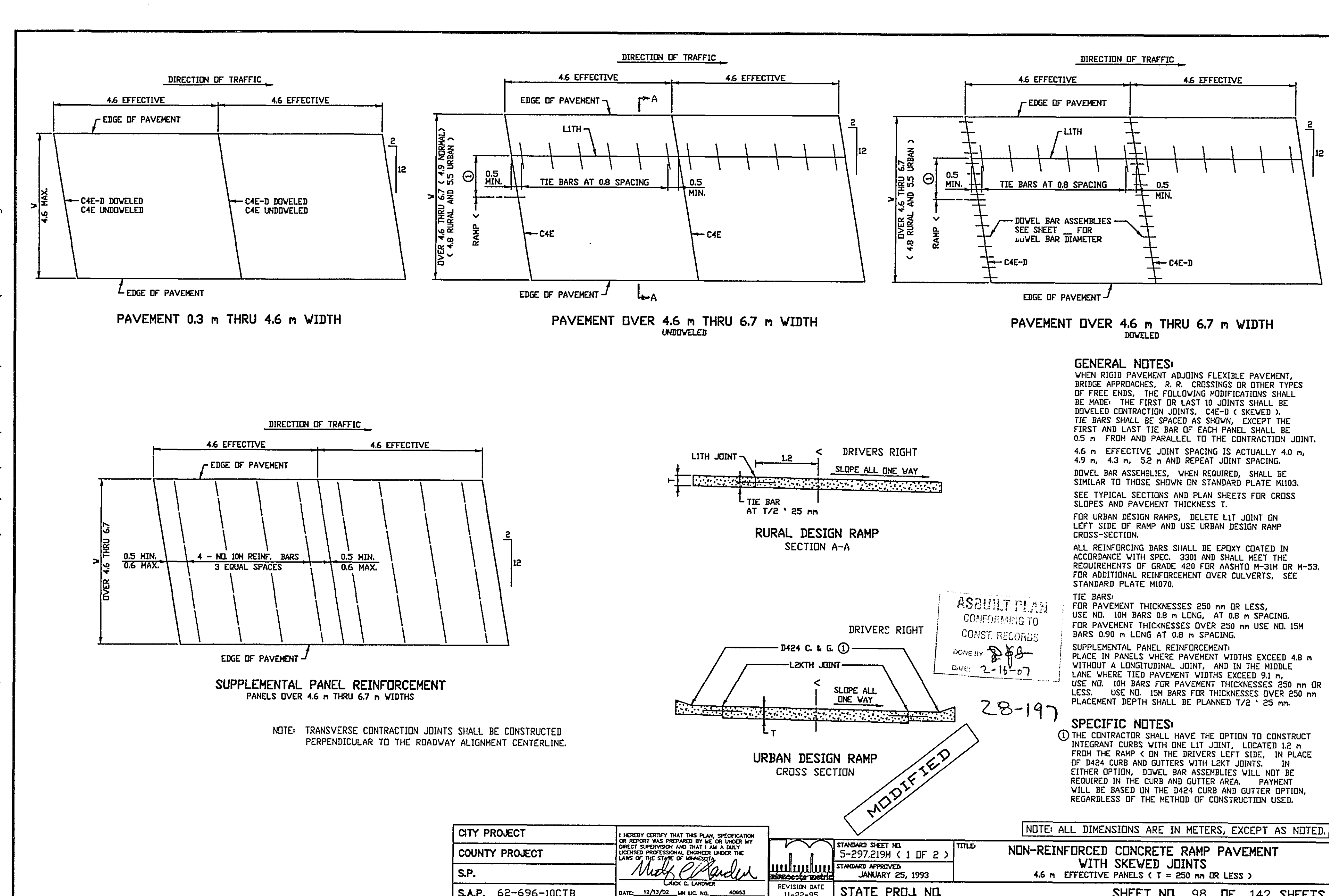
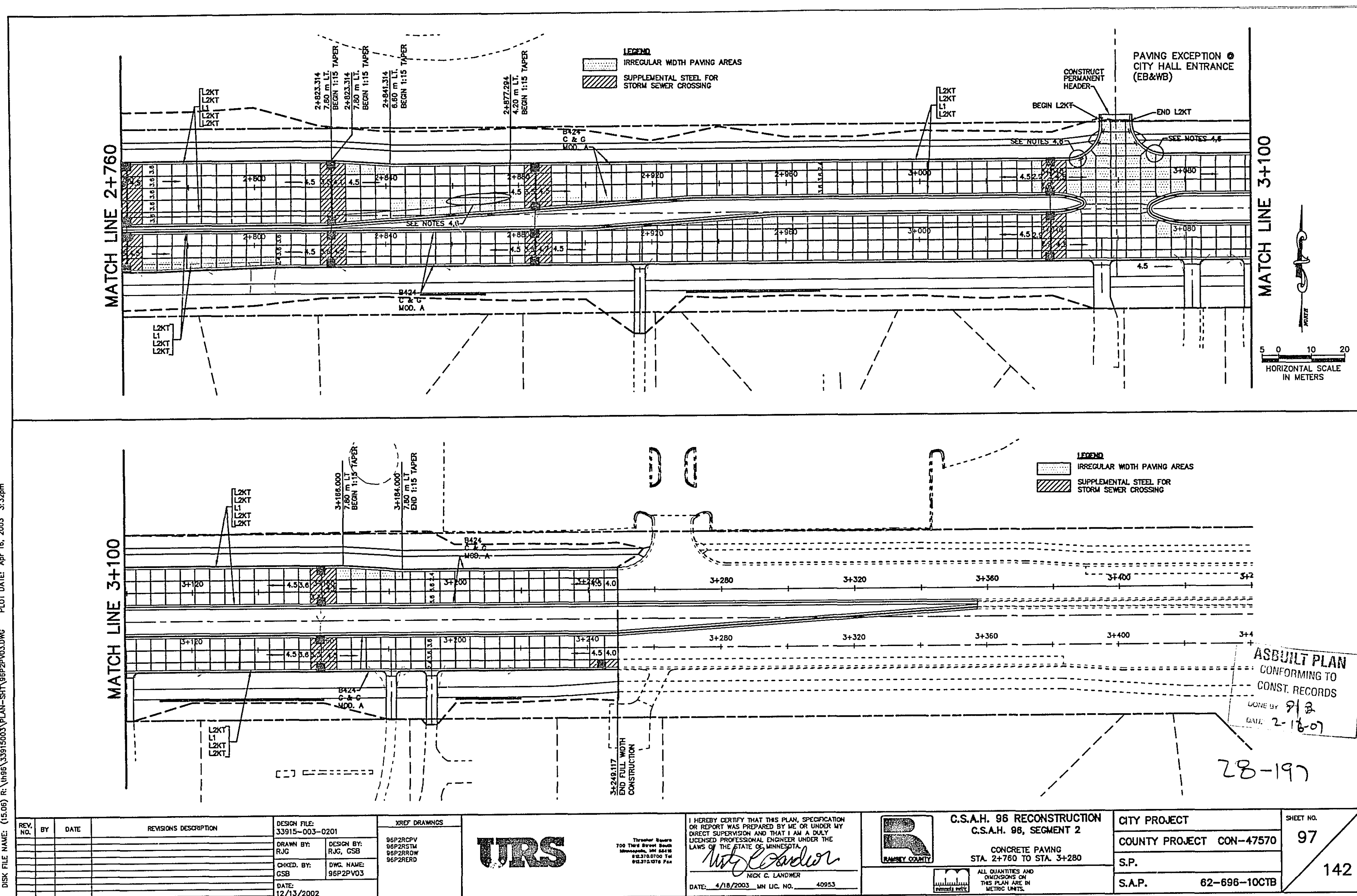
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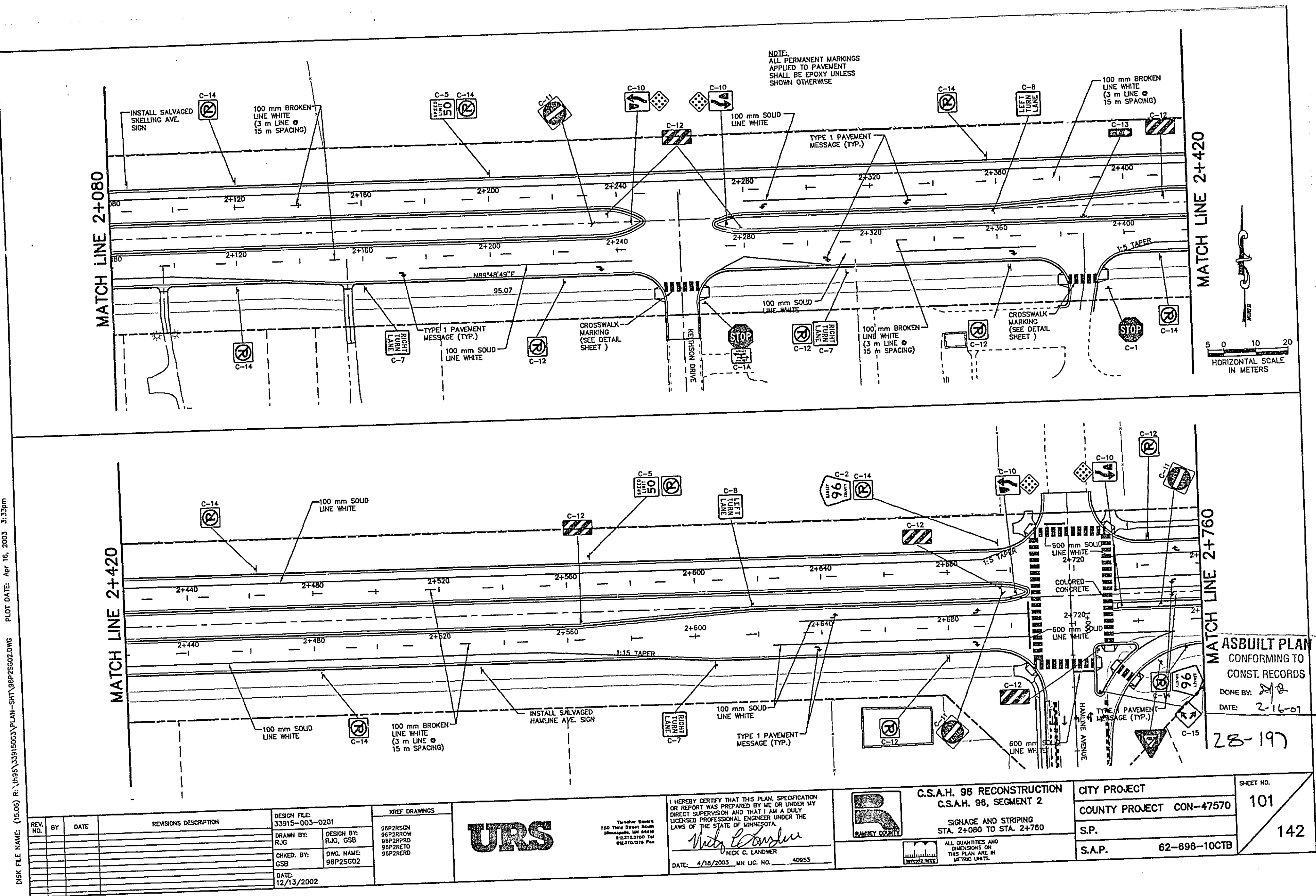
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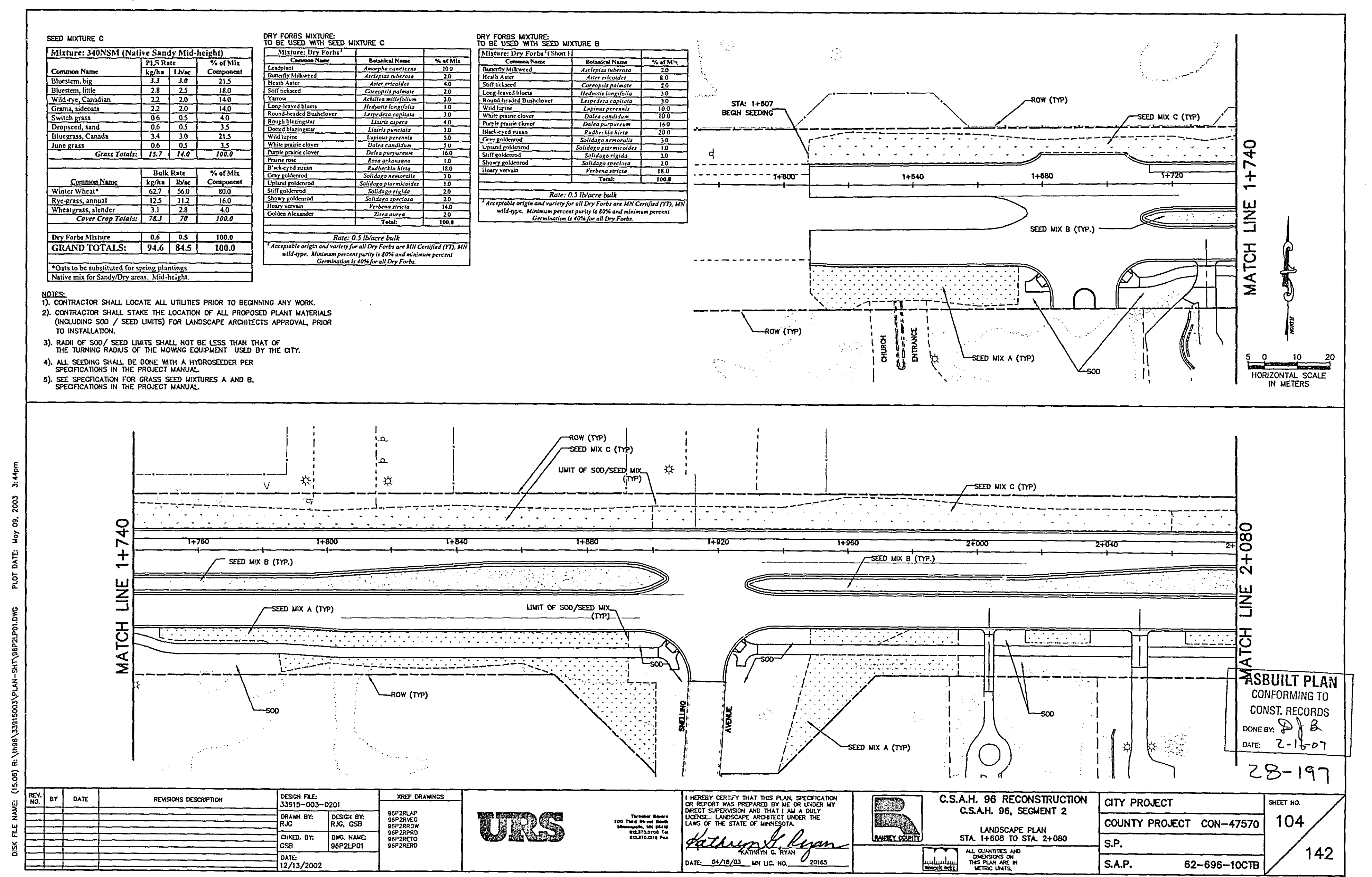
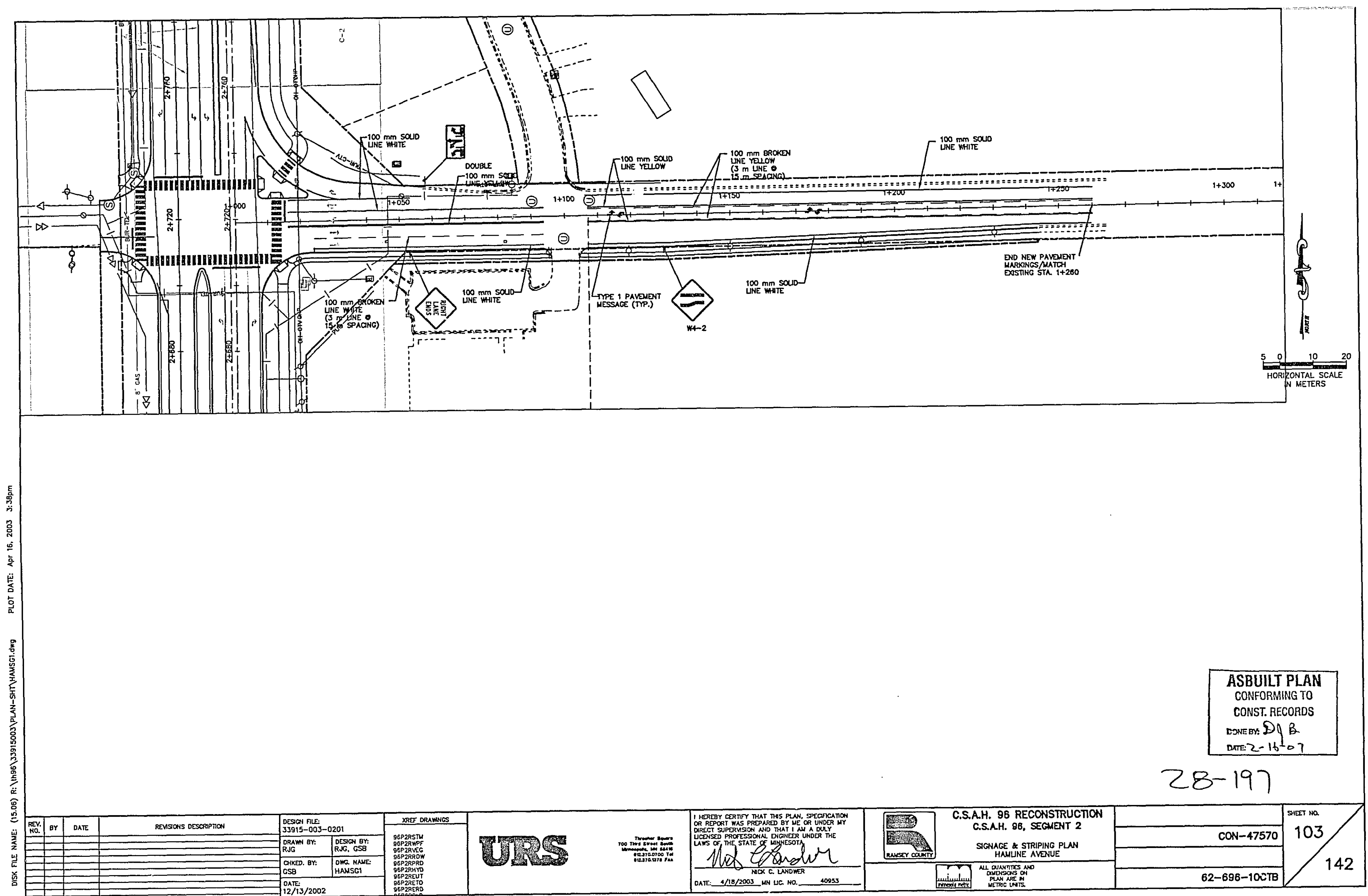
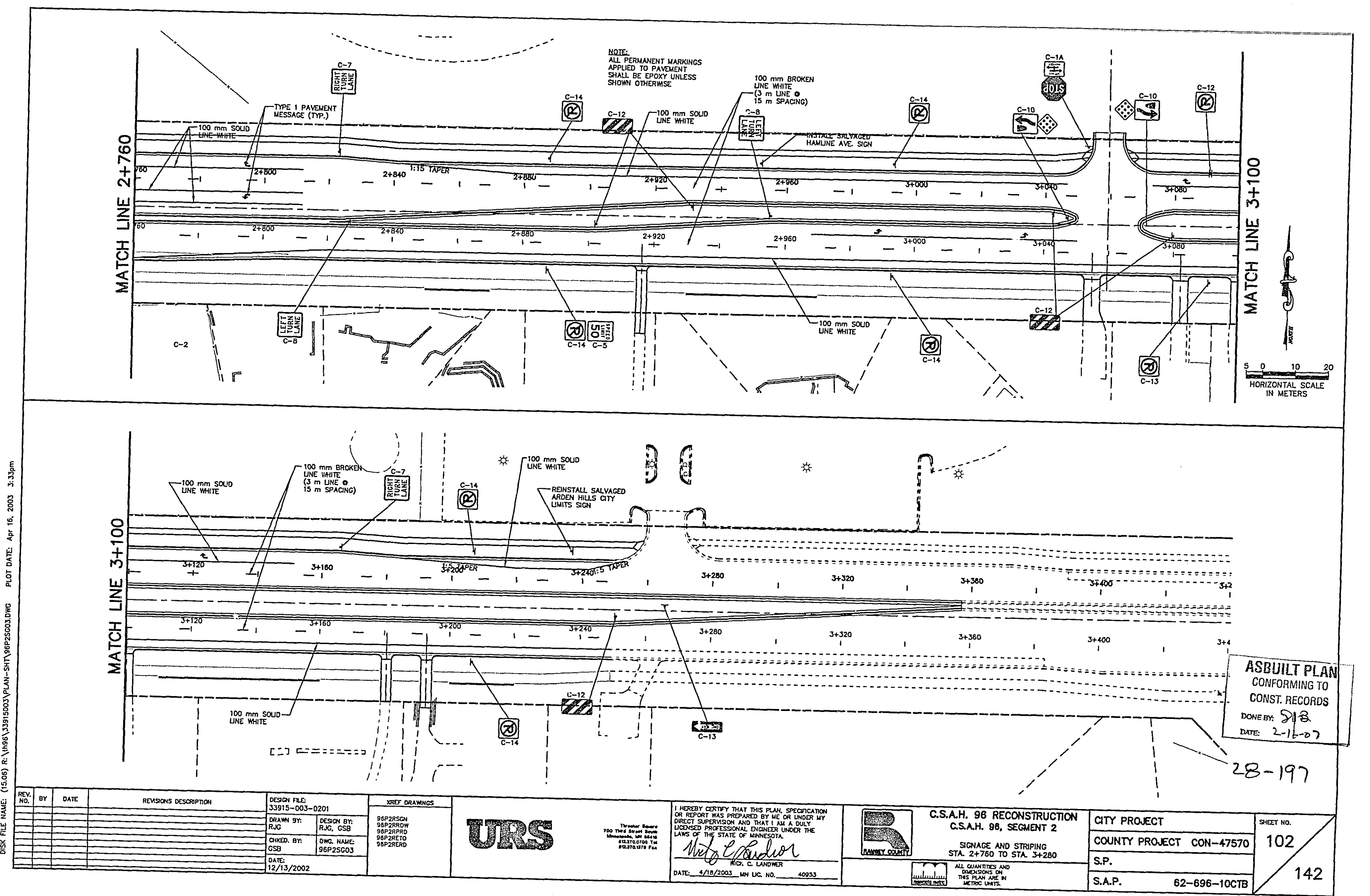
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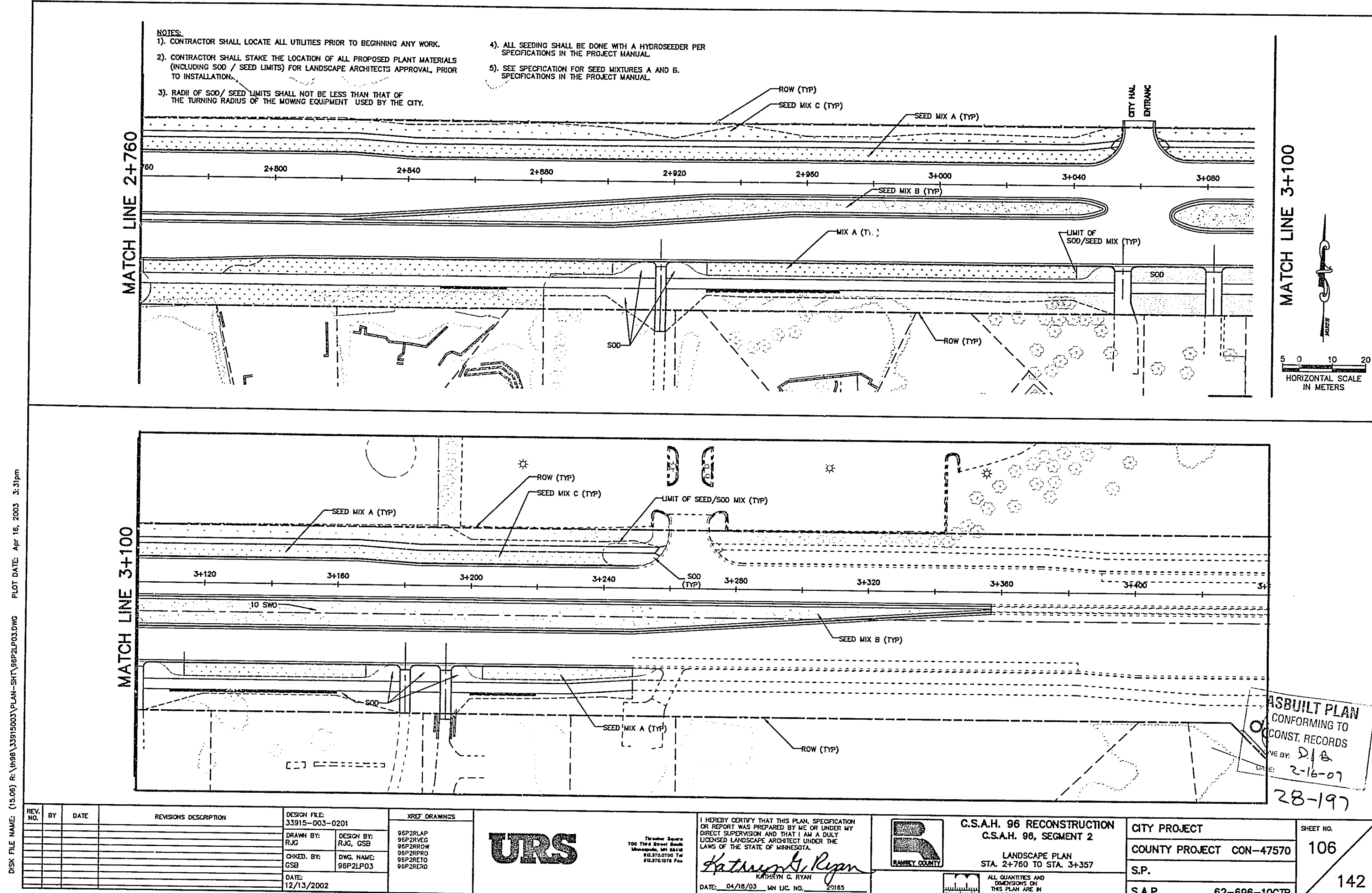
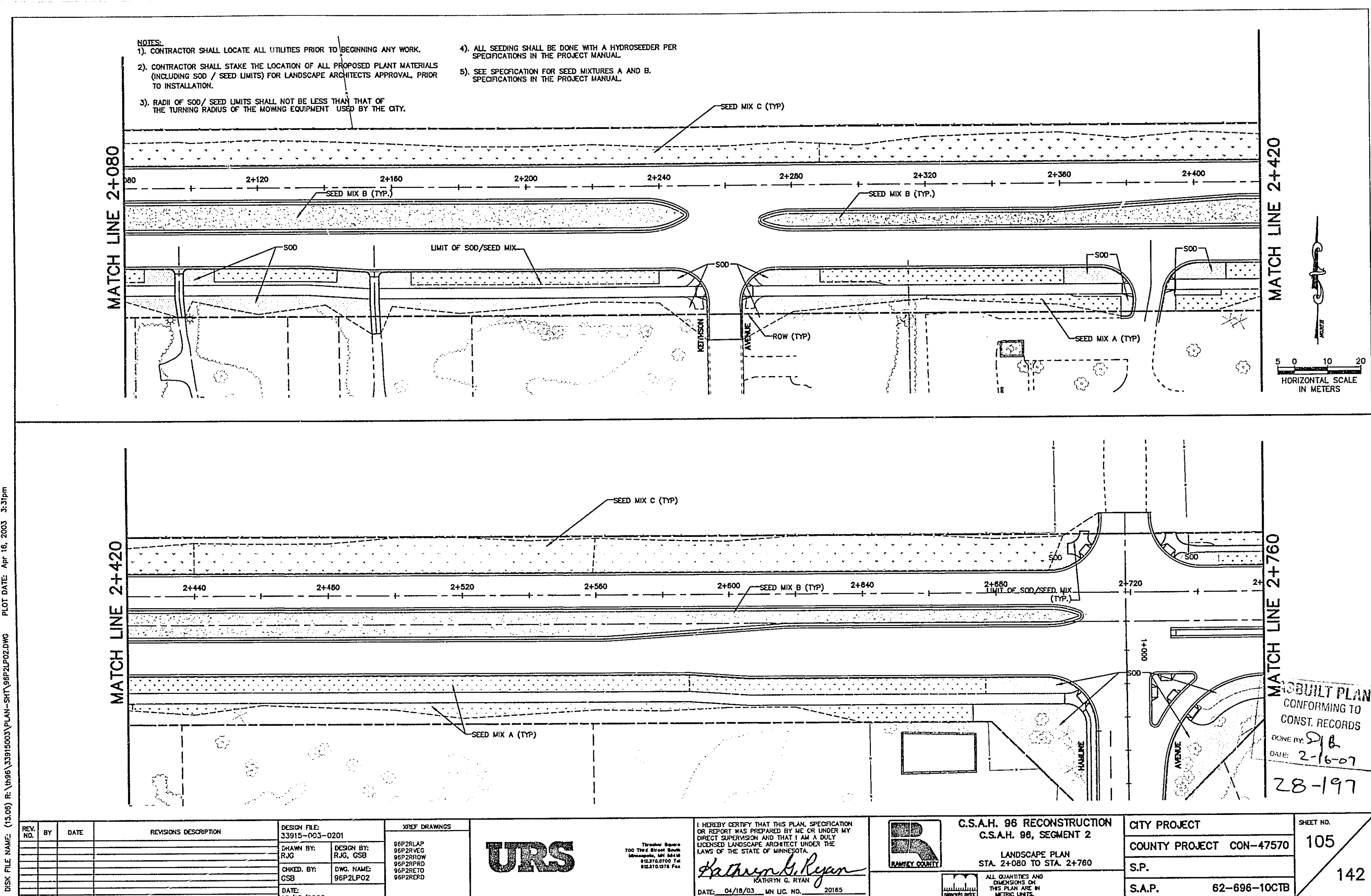


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EARTHWORK TABULATION
STATION 1+480 TO 2+050

ROAD STATION	Mineral Soil		Topsoil	
	Incremental	Cumulative	Incremental	Cumulative
1+480	0.00	0.00	0.00	0.00
1+500	0.00	0.00	0.00	0.00
1+520	0.00	0.00	0.00	0.00
1+540	0.00	0.00	0.00	0.00
1+560	0.00	0.00	0.00	0.00
1+580	0.00	0.00	0.00	0.00
1+600	0.00	0.00	0.00	0.00
1+620	0.00	0.00	0.00	0.00
1+640	0.00	0.00	0.00	0.00
1+660	0.00	0.00	0.00	0.00
1+680	0.00	0.00	0.00	0.00
1+700	0.00	0.00	0.00	0.00
1+720	0.00	0.00	0.00	0.00
1+740	0.00	0.00	0.00	0.00
1+760	0.00	0.00	0.00	0.00
1+780	0.00	0.00	0.00	0.00
1+800	0.00	0.00	0.00	0.00
1+820	0.00	0.00	0.00	0.00
1+840	0.00	0.00	0.00	0.00
1+860	0.00	0.00	0.00	0.00
1+880	0.00	0.00	0.00	0.00
1+900	0.00	0.00	0.00	0.00
1+920	0.00	0.00	0.00	0.00
1+940	0.00	0.00	0.00	0.00
1+960	0.00	0.00	0.00	0.00
1+980	0.00	0.00	0.00	0.00
2+000	0.00	0.00	0.00	0.00
2+020	0.00	0.00	0.00	0.00
2+040	0.00	0.00	0.00	0.00
2+050	0.00	0.00	0.00	0.00

EARTHWORK TABULATION
STATION 2+060 TO 2+700

ROAD STATION	Mineral Soil		Topsoil	
	Incremental	Cumulative	Incremental	Cumulative
2+060	0.00	0.00	0.00	0.00
2+080	0.00	0.00	0.00	0.00
2+100	0.00	0.00	0.00	0.00
2+120	0.00	0.00	0.00	0.00
2+140	0.00	0.00	0.00	0.00
2+160	0.00	0.00	0.00	0.00
2+180	0.00	0.00	0.00	0.00
2+200	0.00	0.00	0.00	0.00
2+220	0.00	0.00	0.00	0.00
2+240	0.00	0.00	0.00	0.00
2+260	0.00	0.00	0.00	0.00
2+280	0.00	0.00	0.00	0.00
2+300	0.00	0.00	0.00	0.00
2+320	0.00	0.00	0.00	0.00
2+340	0.00	0.00	0.00	0.00
2+360	0.00	0.00	0.00	0.00
2+380	0.00	0.00	0.00	0.00
2+400	0.00	0.00	0.00	0.00
2+420	0.00	0.00	0.00	0.00
2+440	0.00	0.00	0.00	0.00
2+460	0.00	0.00	0.00	0.00
2+480	0.00	0.00	0.00	0.00
2+500	0.00	0.00	0.00	0.00
2+520	0.00	0.00	0.00	0.00
2+540	0.00	0.00	0.00	0.00
2+560	0.00	0.00	0.00	0.00
2+580	0.00	0.00	0.00	0.00
2+600	0.00	0.00	0.00	0.00
2+620	0.00	0.00	0.00	0.00
2+640	0.00	0.00	0.00	0.00
2+660	0.00	0.00	0.00	0.00
2+680	0.00	0.00	0.00	0.00
2+700	0.00	0.00	0.00	0.00

DESIGN FILE: 33915-003-0201
DESIGN BY: RUC, CSD
CHECKED BY: CSD
DATE: 12/13/2002

DESIGNER: URS

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: 04/18/03 UN. LIC. NO.: 2055

C.S.A.H. 96 RECONSTRUCTION
C.S.A.H. 96, SEGMENT 2
ESTIMATED QUANTITIES

CITY PROJECT
COUNTY PROJECT CON-47570
S.P.
S.A.P. 62-696-10CTB

SHEET NO. 107
142

EARTHWORK TABULATION
STATION 2+700 TO 3+360

ROAD STATION	Mineral Soil		Topsoil	
	Incremental	Cumulative	Incremental	Cumulative
2+700	0.00	0.00	0.00	0.00
2+720	0.00	0.00	0.00	0.00
2+740	0.00	0.00	0.00	0.00
2+760	0.00	0.00	0.00	0.00
2+780	0.00	0.00	0.00	0.00
2+800	0.00	0.00	0.00	0.00
2+820	0.00	0.00	0.00	0.00
2+840	0.00	0.00	0.00	0.00
2+860	0.00	0.00	0.00	0.00
2+880	0.00	0.00	0.00	0.00
2+900	0.00	0.00	0.00	0.00
2+920	0.00	0.00	0.00	0.00
2+940	0.00	0.00	0.00	0.00
2+960	0.00	0.00	0.00	0.00
2+980	0.00	0.00	0.00	0.00
3+000	0.00	0.00	0.00	0.00
3+020	0.00	0.00	0.00	0.00
3+040	0.00	0.00	0.00	0.00
3+060	0.00	0.00	0.00	0.00
3+080	0.00	0.00	0.00	0.00
3+100	0.00	0.00	0.00	0.00
3+120	0.00	0.00	0.00	0.00
3+140	0.00	0.00	0.00	0.00
3+160	0.00	0.00	0.00	0.00
3+180	0.00	0.00	0.00	0.00
3+200	0.00	0.00	0.00	0.00
3+220	0.00	0.00	0.00	0.00
3+240	0.00	0.00	0.00	0.00
3+260	0.00	0.00	0.00	0.00
3+280	0.00	0.00	0.00	0.00
3+300	0.00	0.00	0.00	0.00
3+320	0.00	0.00	0.00	0.00
3+340	0.00	0.00	0.00	0.00
3+360	0.00	0.00	0.00	0.00

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