Public Notice

U S Army Corps of Engineers
Huntington District

In reply refer to Public Notice No. 2007-00949-CUY

Issuance Date: JAN 09 2009

Stream: Unnamed Tribs to Cuyahoga and Chagrin Rivers

Closing Date: MAR 10 2009

Please address all comments and inquiries to:
U.S. Army Corps of Engineers, Huntington District, Ohio Transportation Office
ATTN: CELRH-OR-FN-OT Public Notice No. (*reference above*)
3990 East Broad Street
Building 10, Section 10
Columbus, Ohio 43218-3990
Phone: (614) 692-4654

PUBLIC NOTICE: The purpose of this public notice is to inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. We hope you will participate in this process.

REGULATORY PROGRAM: Since its early history, the U.S. Army Corps of Engineers (Corps) has played an important role in the development of the nation's water resources. Originally, this involved construction of harbor fortifications and coastal defenses. Later duties included the improvement of waterways to provide avenues of commerce. An important part of our mission today is the protection of the nation's waterways through the administration of the Corps Regulatory Program.

SECTION 10: The Corps is directed by Congress under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) to regulate all work or structures in or affecting the course, condition or capacity of navigable waters of the United States (U.S.). The intent of this law is to protect the navigable capacity of waters important to interstate commerce.

SECTION 404: The Corps is directed by Congress under Section 404 of the Clean Water Act (33 USC 1344) to regulate the discharge of dredged and fill material into all waters of the United States, including wetlands. The intent of the law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical and biological integrity.

TO WHOM IT MAY CONCERN: The following application has been submitted for a Department of the Army Permit under the provisions of Section 404 of the Clean Water Act. This notice serves as the Corps of Engineers' request to the Ohio Environmental Protection Agency (OEPA) to act on Section 401 Water Quality Certification for the following application:

APPLICANT: Ohio Department of Transportation
1980 West Broad Street
Columbus, Ohio 43223

LOCATION: The proposed project is located in two jurisdictional streams and fourteen jurisdictional wetlands along 2.12 miles of State Route (SR) 43 from SR 82 northward to approximately 560 feet north of Squires Road in the City of Aurora, Portage County, Ohio.

DESCRIPTION OF THE PROPOSED WORK: The applicant proposes to place fill material in waters of the United States in order to widen 2.12 miles of SR 43 from SR 82 northward to approximately 560 feet north of Squires Road in the City of Aurora, Portage County, Ohio. Widening activities would result in four through lanes, new left-turn lanes at major intersections (SR82, Barrington Boulevard, Sycamore Drive, Aurora Lake Road, Treat Road and Squires Road), and a two-way left-turn lane from Aurora Lake Road to Treat Road. In addition, the project would include new curbs and gutters, several culvert replacements, a closed storm sewer system, the relocation of existing cable, natural gas, electric water and sewer utilities, and the reconstruction of existing sidewalks to meet Americans with Disabilities Act (ADA) standards.

Work associated with the proposed project would involve the permanent placement of approximately 3,804 cubic yards of fill material into 0.786 acre of fourteen wetlands and 303 cubic yards of fill material into 228 linear feet (0.02 acre) of two unnamed tributaries to the Cuyahoga River.

ALTERNATIVE ANALYSIS: A total of 0.786 acre of fourteen jurisdictional wetlands and a total of 228 linear feet of two streams would be impacted as a result of the proposal. The project does not require access to or siting within a special aquatic site to fulfill its basic purpose and is considered a non-water dependent activity. The Section 404(b)(1) Guidelines state that for non-water dependent activities, practicable alternatives that do not involve special aquatic sites are presumed to be available unless clearly demonstrated otherwise. The applicant is required to provide an alternatives analysis which must overcome the presumption prior to receiving authorization for the placement of fill. The applicant has submitted an alternatives analysis for review. No permit will be issued until our review of the alternative analysis clearly shows that upland alternatives are not available to achieve the applicant's goal.

MITIGATION PLAN: The applicant has submitted a conceptual mitigation plan to compensate for unavoidable impacts. The proposed mitigation plan involves utilizing 1.347 acres of wetland credit and 342 linear feet of stream credit from the ODOT Pond Brook Pooled Stream and Wetland Mitigation Area (PSWMA) located within Liberty Park of Summit County.

WATER QUALITY CERTIFICATION: A section 401 Water Quality Certification is required for this project. It is the applicant's responsibility to obtain the certification from the Ohio Environmental Protection Agency.

HISTORIC AND CULTURAL RESOURCES: The Federal Highway Administration (FHWA) is the lead Federal agency for this project. As such, FHWA is responsible for compliance with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act. The applicant received concurrence on their finding of "no historic properties affected" determination from the Ohio State Historic Preservation Office on July 10, 2007. A copy of this public notice will be sent to the Ohio Historic Preservation Office for review. Comments concerning archeological sensitivity of a project area should be based upon collected data.

ENDANGERED/THREATENED SPECIES REVIEW: The project is located within the known or historic range of the following endangered (E), threatened (T) or candidate (C) species:

Indiana bat (E)
Mitchell's satyr (E)
Northern monkshood (T)
Eastern massasauga (C)

As noted, FHWA is the lead Federal agency for this project. FHWA is responsible for compliance with the NEPA and Section 7 of the Endangered Species Act. The proposed project occurs within 2.5 miles of Indiana bat capture records. The U.S. Fish and Wildlife Service (USFWS), in a letter to the applicant dated September 17, 2007, concurred with the applicant's determination that the project may affect, but is not likely to adversely affect the Indiana bat. This public notice serves as a request to the USFWS for any additional information they may have on whether any listed or proposed to be listed endangered or threatened species may be present in the area which would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1972 (as amended).

PUBLIC INTEREST REVIEW AND COMMENT: Any person who has an interest that may be adversely affected by the issuance of a permit may request a public hearing. The request must be submitted in writing to the District Engineer on or before the expiration date of this notice and must clearly set forth the interest which may be adversely affected and the manner in which the interest may be adversely affected by the activity. This application will be reviewed in accordance with 33 CFR 320-332, the Regulatory Program of the U. S. Army Corps of Engineers (USACE), and other pertinent laws, regulations, and executive orders. Our evaluation will also follow the guidelines published by the U. S. Environmental Protection Agency pursuant to Section 404(b) (1) of the CWA. Interested parties are invited to state any objections they may have to the proposed work. The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit that reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered including the cumulative effects thereof; of those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. Written statements on these factors received in this office on or before the expiration date of this public notice will become a part of the record and will be considered in the final determination. A permit will be granted unless its issuance is found to be contrary to the public interest.

SOLICITATION OF COMMENTS: The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. For accuracy and completeness of the administrative record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition. Any comments received will be considered by the Corps of Engineers to

determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

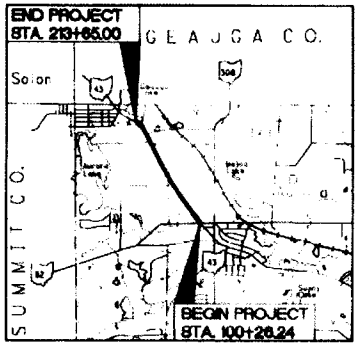
CLOSE OF COMMENT PERIOD: All comments pertaining to this Public Notice must reach this office on or before the close of the comment period listed on page one of this Public Notice. If no comments are received by that date, it will be considered that there are no objections. Comments and requests for additional information should be submitted to:

West Virginia/Transportation Section – Ohio Regulatory Transportation Office
U.S. Army Corps of Engineers Huntington District
3990 East Broad Street
Building 10, Section 10
Columbus, Ohio 43218-3990

Please note, the names and addresses of those who submit comments in response to this public notice become part of our administrative record and, as such, are available to the public under provisions of the Freedom of Information Act. Thank you for your interest in our nation's water resources. If you have any questions concerning this public notice, please contact Mr. Peter Clingan of the Ohio Regulatory Transportation Office, at 614-692-4654.

Ginger Mullins
Chief, Regulatory Branch

(O, B)



LATITUDE: N 41°19'45" LONGITUDE: W 81°21'35"

LOCATION MAP

SCALE IN MILES

0 0.5 1 2

Portion to be Improved

Other Roads

FOR DESIGN DESIGNATIONS AND DESIGN EXCEPTIONS SEE SHEET 2

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
POR-43-23.59
NORTH AURORA ROAD
CITY OF AURORA
PORTAGE COUNTY

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PROJECT DESCRIPTION

WIDENING AND RESURFACING OF 2.15 MILES OF STATE ROUTE 43 (NORTH AURORA ROAD) INCLUDING NEW STORM SEWER, CURB AND GUTTER, TRAFFIC SIGNALS, SIGNING AND PAVEMENT MARKINGS IN THE CITY OF AURORA, PORTAGE COUNTY, OHIO.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	26.30 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	1.00 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	27.30 ACRES

2005 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT FOR THE SIDE ROADS AS DESCRIBED ON SHEETS 21 - 22 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

STAGE 3 SUBMITTAL
OCTOBER 29, 2007

STANDARD CONSTRUCTION DRAWINGS

MT-35.10	04/20/01	GR-4.1	04/18/03	TC-42.20	07/16/04	HW-2.2	04/21/06				
MT-95.31	09/05/06	GR-4.2	01/19/07	TC-52.10	01/19/07						
MT-97.10	09/05/06			TC-52.20	01/19/07	MH-1.1	07/19/02				
MT-97.11	09/05/06	RM-1.1	04/21/06	TC-71.10	01/19/07	MH-1.2	01/20/06				
MT-99.20M	01/30/95			TC-81.20	01/19/04	MH-1.3	07/20/01				
MT-101.60	09/20/06	HL-30.11	01/21/05	TC-82.10	04/19/02						
MT-105.10	10/18/02	HL-30.21	01/19/07	TC-83.10	01/19/07	DM-1.1	04/21/06				
MT-105.11	10/18/02	HL-30.22	01/21/05	TC-83.20	01/19/07	DM-1.2	10/21/05				
				TC-85.20	05/07/00	DM-1.3	07/20/01				
BP-3.1	10/19/07	TC-16.20	01/19/07			DM-1.4	04/21/06				
BP-4.1	07/18/04	TC-17.10	01/19/07	CB-1.1	07/15/05	DM-4.3	07/19/02				
BP-5.1	07/28/00	TC-21.20	01/19/07	CB-2.1	07/15/05	DM-4.4	07/19/02				
BP-7.1	01/19/07	TC-41.20	01/19/01	CB-2.2	07/15/05						
		TC-41.30	01/19/07	CB-2.3	07/15/05	WQ-1.2	04/21/06				
GR-1.1	07/18/04	TC-41.40	07/18/04	CB-3.2	07/15/05						
GR-2.1	01/18/04	TC-41.41	01/19/01	CB-3.3	07/15/05						

SUPPLEMENTAL SPECIFICATIONS

800	04/17/06
815	01/19/07
832	04/25/06
835	04/21/06
872	04/21/06
908	01/19/07

SPECIAL PROVISIONS

ENGINEER'S SEAL:

SIGNED:
DATE:

PLANS PREPARED BY:

URS

Akron Cleveland Columbus

554 White Pond Drive
Akron, Ohio 44320-1100
(330) 836-9117

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG
CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY
OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL 1-800-925-0988

APPROVED
DATE MAYOR, CITY OF AURORA

APPROVED
DATE SERVICE DIRECTOR, CITY OF AURORA

APPROVED
DATE DISTRICT DEPUTY DIRECTOR, DEPT. OF TRANSPORTATION

APPROVED

FEDERAL PROJECT NO. E050 (014)

PID NO. 78243

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

POR-43-23.59

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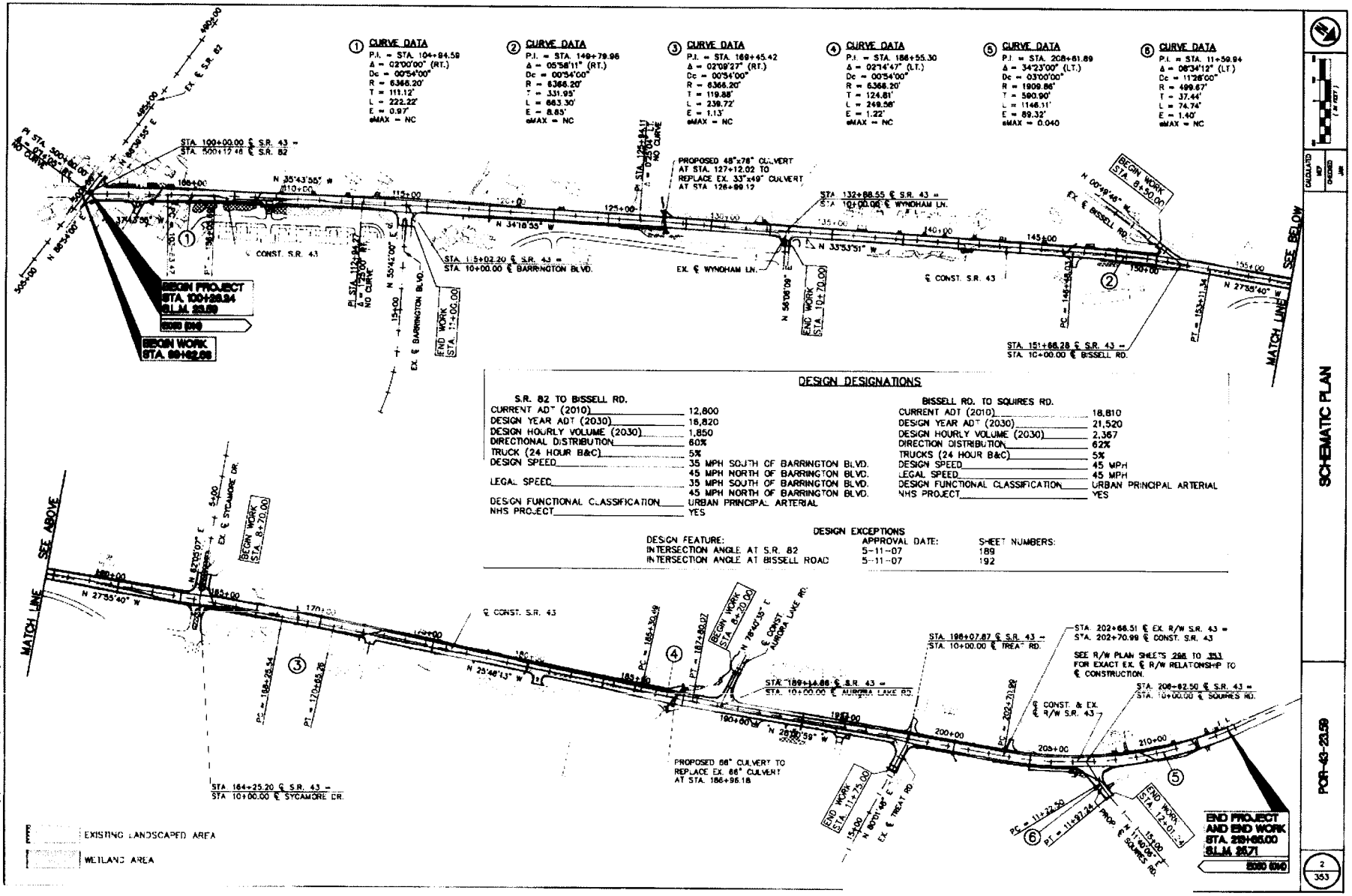

DESIGN DESIGNATIONS

S.R. 82 TO BISSELL RD.	
CURRENT ADT (2010)	12,800
DESIGN YEAR ADT (2030)	16,820
DESIGN HOURLY VOLUME (2030)	1,850
DIRECTIONAL DISTRIBUTION	60%
TRUCK (24 HOUR B&C)	5%
DESIGN SPEED	35 MPH SOUTH OF BARRINGTON BLVD. 45 MPH NORTH OF BARRINGTON BLVD.
LEGAL SPEED	35 MPH SOUTH OF BARRINGTON BLVD. 45 MPH NORTH OF BARRINGTON BLVD.
DESIGN FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL
NHS PROJECT	YES

BISSELL RD. TO SQUIRES RD.	
CURRENT ADT (2010)	18,810
DESIGN YEAR ADT (2030)	21,520
DESIGN HOURLY VOLUME (2030)	2,367
DIRECTION DISTRIBUTION	62%
TRUCKS (24 HOUR B&C)	5%
DESIGN SPEED	45 MPH
LEGAL SPEED	45 MPH
DESIGN FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL
NHS PROJECT	YES

DESIGN EXCEPTIONS

DESIGN FEATURE:	APPROVAL DATE:	SHEET NUMBERS:
INTERSECTION ANGLE AT S.R. 82	5-11-07	189
INTERSECTION ANGLE AT BISSELL ROAD	5-11-07	192

SCHEMATIC PLAN

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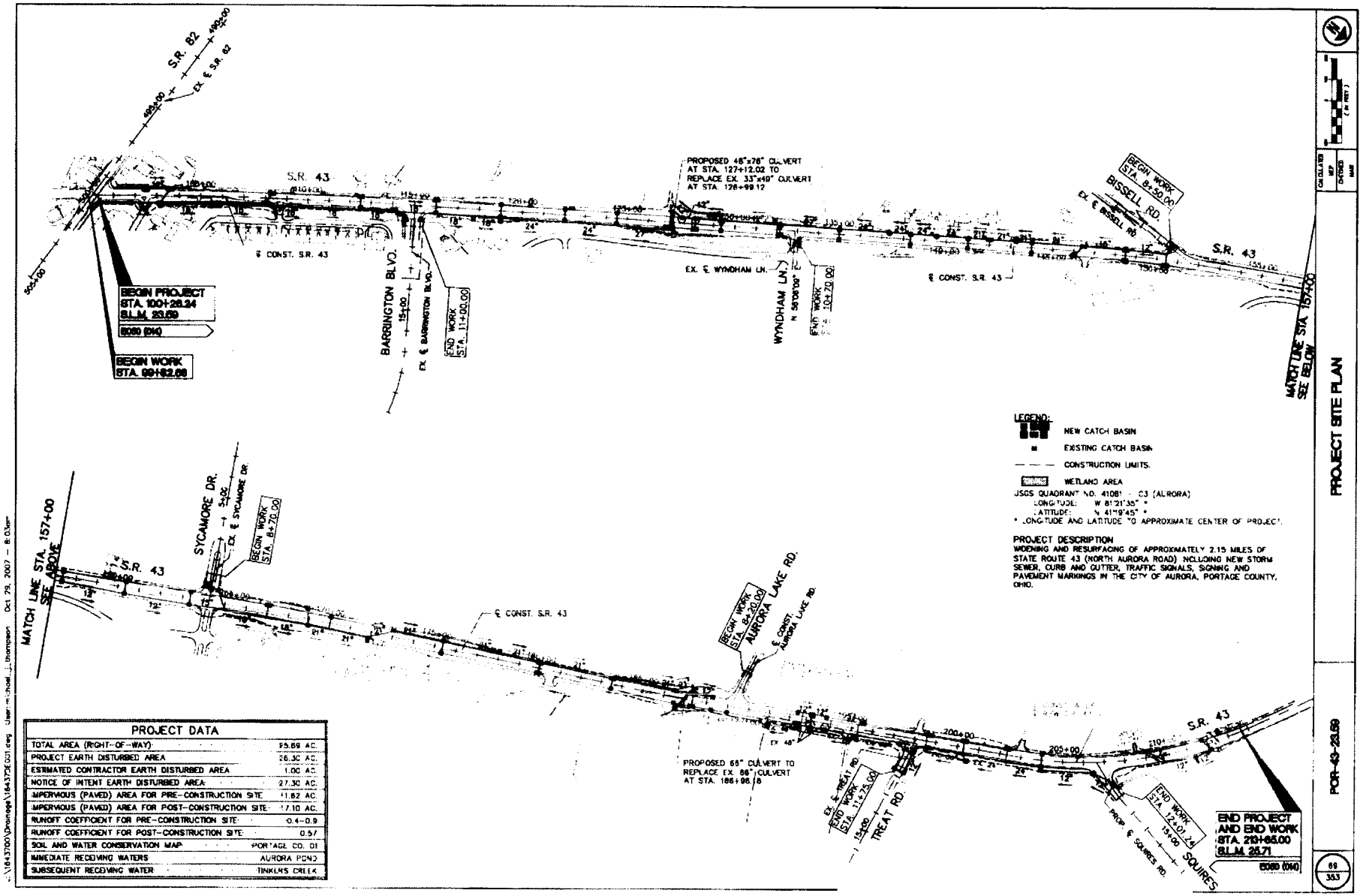

PROJECT DATA	
TOTAL AREA (RIGHT-OF-WAY)	95.69 AC.
PROJECT EARTH DISTURBED AREA	26.30 AC.
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	1.00 AC.
NOTICE OF INTENT EARTH DISTURBED AREA	27.30 AC.
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE	11.82 AC.
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE	17.10 AC.
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.4-0.9
RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE	0.57
SOIL AND WATER CONSERVATION MAP	PORTAGE CO. 01
IMMEDIATE RECEIVING WATERS	AURORA POND
SUBSEQUENT RECEIVING WATER	TINKER'S CREEK

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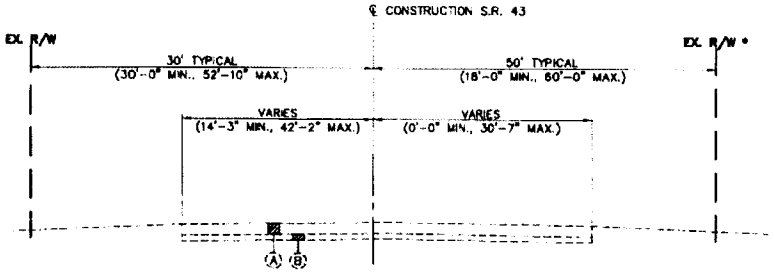
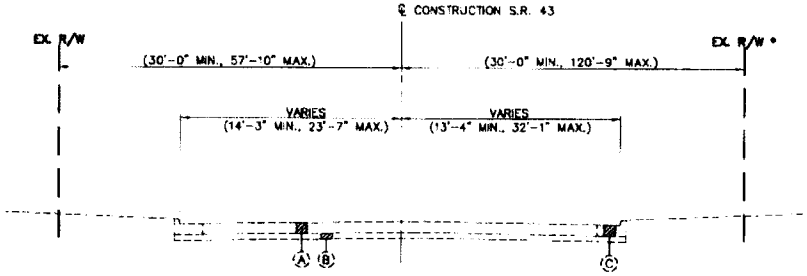


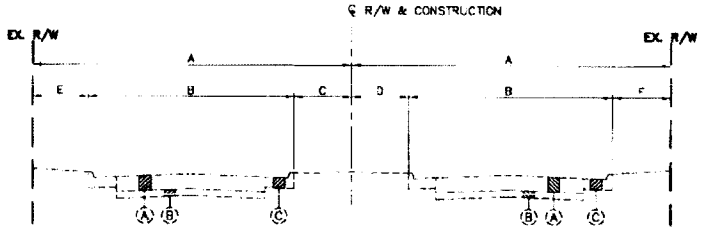
EXISTING TYPICAL SECTION

S.R. 43



EXISTING TYPICAL SECTION

S.R. 43



EXISTING TYPICAL SECTION

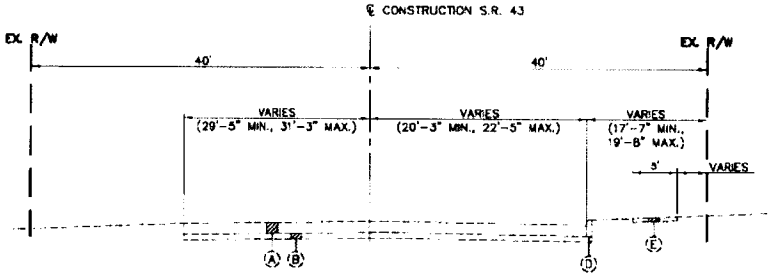
BARRINGTON BOULEVARD
WYNDHAM LANE
SYCAMORE DRIVE

ROAD	A	B	C	D	E	F
BARRINGTON BLVD.	50' 0"	26'-8"	3'-0"	11'-6"	20' 6"	12'-0"
WYNDHAM LN.	30'-0"	16'-3"	4' 0"	4' 6"	10'-0"	9'-6"
SYCAMORE DR.	50' 0"	20' 0"	12'-0"	12'-0"	18'-0"	18' 0"

EXISTING LEGEND

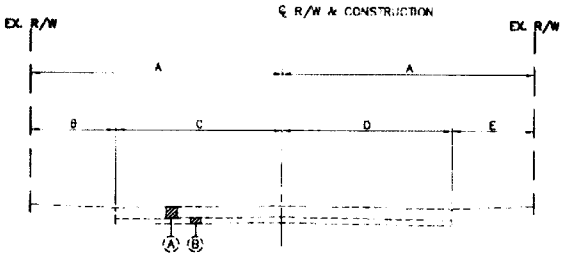
- (A) EXISTING ASPHALT PAVEMENT THICKNESS VARIES BETWEEN 12½" TO 23½", 16" AVERAGE CORE DEPTH
- (B) EXISTING LIMESTONE OR SLAG BASE, T=6"±
- (C) EXISTING CURB AND GUTTER (CURB ONLY ON SYCAMORE DRIVE)
- (D) EXISTING CURB
- (E) EXISTING SIDEWALK

*NOTE: HIGHWAY & UTILITY EASEMENT FROM STA. 183+79.39 TO STA. 197+88.32 IS 50' RT. OF ℄ CONST. S.R. 43.



EXISTING TYPICAL SECTION

S.R 43



EXISTING TYPICAL SECTION

BISSELL ROAD
AURORA LAKE ROAD
TREAT ROAD
SQUIRES ROAD

ROAD	A	B	C	D	E
BISSELL RD.	25'-0"	8' 0"	17'-0"	5'-6"	19'-6"
AURORA LAKE RD.	30' 0"	25'-6"	4' 6"	21' 6"	8' 6"
TREAT RD.	30' 0"	13' 6"	16'-6"	20'-6"	9'-6"
SQUIRES RD.	25'-0"	8'-0"	17'-0"	18'-6"	6' 6"

CALCULATED
Re-CHECKED
PDI

EXISTING TYPICAL SECTIONS

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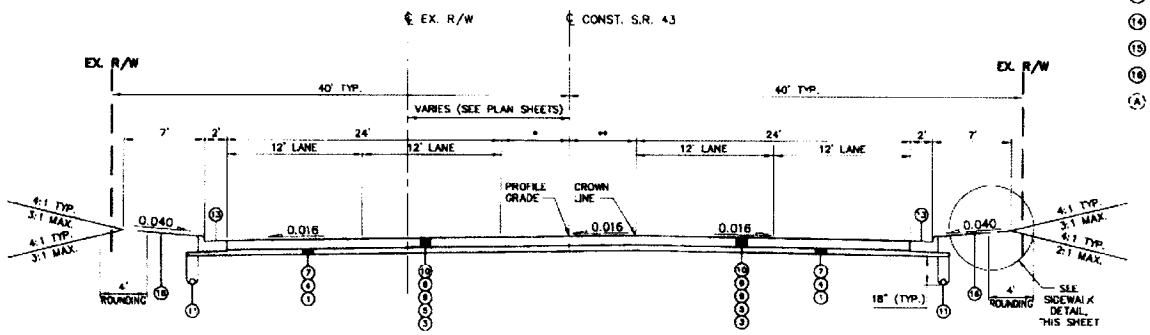
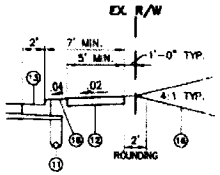
LEGEND

1. ITEM 204 – SUBGRADE COMPACTION
2. ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE (T=VARIES)
3. ITEM 302 – ASPHALT CONCRETE BASE, PG64-22 (T=6")
4. ITEM 304 – AGGREGATE BASE (DEPTH VARIES TO MATCH EXISTING SUBGRADE DEPTH, MIN. T=6," AVG. T=13")
5. ITEM 407 – TACK COAT
6. ITEM 407 – TACK COAT FOR INTERMEDIATE COURSE
7. ITEM 408 – PRIME COAT
8. ITEM 448 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22 (T=VARIES, LEVELING COURSE)
9. ITEM 448 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22 (T=1.75")
10. ITEM 448 – ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (T=1.25")
11. ITEM 605 – 6" BASE PIPE UNDERDRAINS
12. ITEM 608 – 4" CONCRETE WALK
13. ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2
14. ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
15. ITEM 609 – CURB, TYPE 6
16. ITEM 659 – SEEDING AND MULCHING

(A) EXISTING ASPHALT CONCRETE PAVEMENT (T=VARIES)





SIDEWALK DETAIL

RIGHT SIDE: STA. 100+06.63 TO STA. 114+57.51
LEFT SIDE: STA. 100+97.16 TO STA. 104+50.72

FULL-DEPTH REPLACEMENT
5 LANE SECTION – S.R. 43 (NORTH AURORA ROAD)
RIGHT-SIDED CROWN LINE

STA. 100+26.24 TO STA. 103+90.00	= 363.76 FT.	* = 6'	** = 6'
STA. 103+90.00 TO STA. 104+40.00	= 50.00 FT.	* = 6'	** = 6' TO 4.85'
STA. 104+40.00 TO STA. 106+50.00	= 210.00 FT.	* = 6' TO 0'	** = 4.85' TO 0'
STA. 106+50.00 TO STA. 107+00.00	= 50.00 FT.	* = 0'	** = 0'
	= 673.76 FT.		

TYPICAL SECTIONS - SR 43

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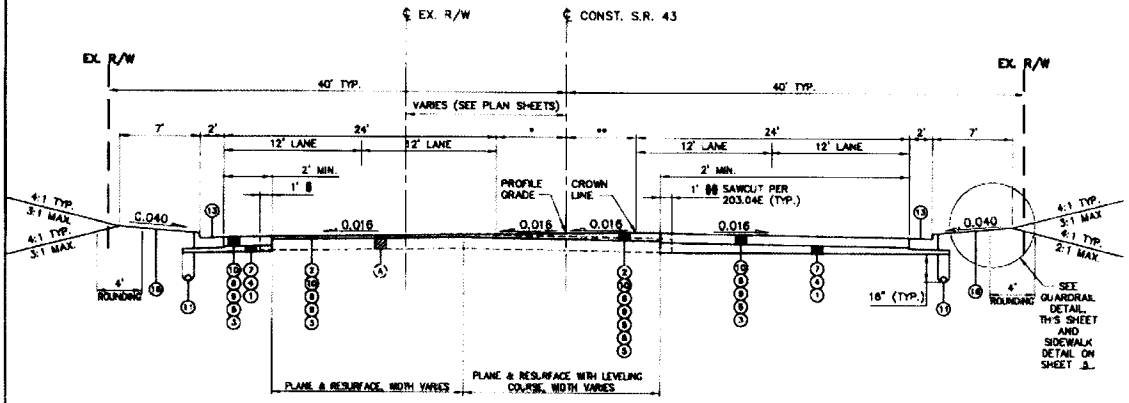
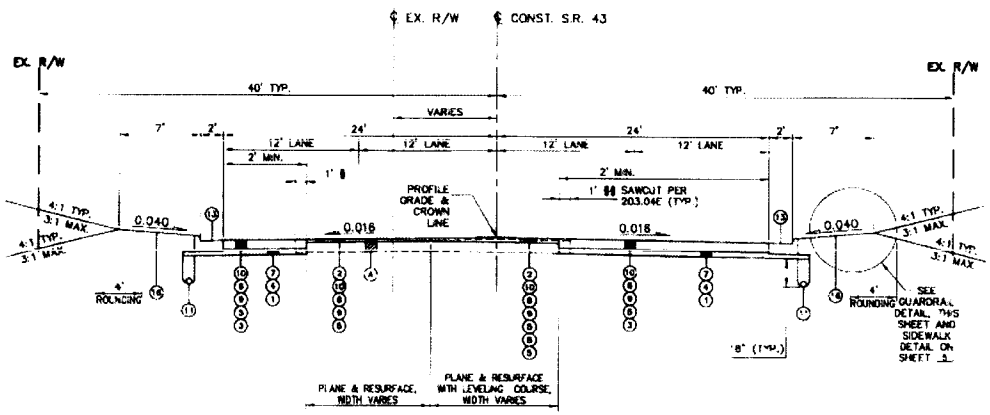


5 LANE SECTION – S.R. 43 (NORTH AURORA ROAD)
RIGHT-SIDED CROWN LINE

	STA. 112+30.00 TO STA. 114+40.00	= 210.00 FT.	* = 0' TO 6'	** = 0' TO 6'
	STA. 114+40.00 TO STA. 117+30.00	= 290.00 FT.	* = 6'	** = 6'
	STA. 117+30.00 TO STA. 118+80.00	= 150.00 FT.	* = 6'	** = 6' TO 3.50'
	STA. 118+80.00 TO STA. 120+90.00	= 210.00 FT.	* = 6' TO 0'	** = 3.50' TO 0'
#	STA. 164+25.00 TO STA. 174+45.00	= 1020.00 FT.	* = 6'	** = 6'
	STA. 174+45.00 TO STA. 175+95.00	= 150.00 FT.	* = 6'	** = 6' TO 3.50'
	STA. 175+95.00 TO STA. 178+05.00	= 210.00 FT.	* = 6' TO 0'	** = 3.50' TO 0'
##	STA. 198+00.00 TO STA. 200+66.56	= 266.56 FT.	* = 6'	** = 6'
		= 2506.56 FT.		

CROWNLINE TRANSFERS FROM 6' LT. TO 6' RT. WHILE MAINTAINING A PAVEMENT WIDTH OF 64' F/F:

STA. 163+75 TO STA. 164+75
STA. 197+50 TO STA. 198+50



4 LANE SECTION – S.R. 43 (NORTH AURORA ROAD)

STA. 107+00.00 TO STA. 112+30.00	= 530.00 FT.
STA. 120+90.00 TO STA. 158+40.00	= 3750.00 FT.
STA. 178+05.00 TO STA. 183+45.00	= 540.00 FT.
	= 4820.00 FT.

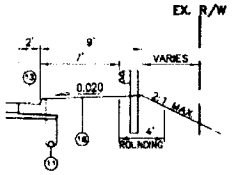
LEGEND

1. ITEM 204 – SUBGRADE COMPACTION
2. ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE (T=VARIES)
3. ITEM 302 – ASPHALT CONCRETE BASE, PG64-22 (T=6")
4. ITEM 304 – AGGREGATE BASE (DEPTH VARIES TO MATCH EXISTING SUBGRADE DEPTH, MIN. T=6," AVG. T=13")
5. ITEM 407 – TACK COAT
6. ITEM 407 – TACK COAT FOR INTERMEDIATE COURSE
7. ITEM 408 – PRIME COAT
8. ITEM 448 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22 (T=VARIES, LEVELING COURSE)
9. ITEM 448 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22 (T=1.75")
10. ITEM 448 – ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (T=1.25")
11. ITEM 605 – 6" BASE PIPE UNDERDRAINS
12. ITEM 608 – 4" CONCRETE WALK
13. ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2
14. ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
15. ITEM 609 – CURB, TYPE 6
16. ITEM 659 – SEEDING AND MULCHING

(A) EXISTING ASPHALT CONCRETE PAVEMENT (T=VARIES)

SAWCUT OFFSETS (CONTINUED ON SHEET 7)

STA. 107+00 TO STA. 108+07, ⊟ = 21.0' LT., ⊟⊟ = 13.0' RT.
STA. 108+07 TO STA. 109+32, ⊟ = 21.0' LT, ⊟⊟ VARIES 13.0' RT. TO 7.9' RT.
STA. 109+32 TO STA. 110+00, ⊟ = 21.0' LT., ⊟⊟ VARIES 7.9' RT. TO 1.0' RT.
STA. 110+00 TO STA. 110+50, ⊟ = 21.0' LT., ⊟⊟ = 1.0' RT.
STA. 110+50 TO STA. 111+00, ⊟ VARIES 21.0' LT. TO 20.4' LT., ⊟⊟ = 1.0' RT.
STA. 111+00 TO STA. 112+00, ⊟ VARIES 20.4' LT. TO 19.3' LT., ⊟⊟ VARIES 1.0' RT. TO 11.0' RT.
STA. 112+00 TO STA. 112+30, ⊟ VARIES 19.3' LT. TO 19.0' LT., ⊟⊟ = 11.0' RT.
STA. 112+30 TO STA. 112+94, ⊟ = 19.0' LT., ⊟⊟ = 11.0' RT.
STA. 112+94 TO STA. 114+17, ⊟ = 19.0' LT., ⊟⊟ VARIES 11.0' RT. TO 10.0' RT.
STA. 114+17 TO STA. 115+81, ⊟ VARIES 19.0' LT. TO 21.0' LT., ⊟⊟ VARIES 10.0' RT. TO 1.0' RT.
STA. 115+81 TO STA. 116+50, ⊟ = 21.0' LT., ⊟⊟ = 1.0' RT.
STA. 116+50 TO STA. 128+50, ⊟ = 21.0' LT., ⊟⊟ = ℄
STA. 128+50 TO STA. 130+50, ⊟ = 21.0' LT., ⊟⊟ VARIES ℄ TO 9.0' RT.
STA. 130+50 TO STA. 132+39, ⊟ = 21.0' LT., ⊟⊟ = 9.0' RT.
STA. 132+39 TO STA. 133+37, ⊟ = 21.0' LT., ⊟⊟ VARIES 9.0' RT. TO ℄
STA. 133+37 TO STA. 147+00, ⊟ = 21.0' LT., ⊟⊟ = ℄
STA. 147+00 TO STA. 148+50, ⊟ = 21.0' LT., ⊟⊟ VARIES ℄ TO 2.0' LT.
STA. 148+50 TO STA. 150+36, ⊟ = 21.0' LT., ⊟⊟ = 2.0' LT.
STA. 150+36 TO STA. 151+97, ⊟ = 21.0' LT., ⊟⊟ VARIES 2.0' LT. TO 1.0' RT.
STA. 151+97 TO STA. 154+50, ⊟ = 21.0' LT., ⊟⊟ = 1.0' RT.
STA. 154+50 TO STA. 156+00, ⊟ = 21.0' LT., ⊟⊟ VARIES 1.0' RT. TO 1.0' LT.
STA. 156+00 TO STA. 158+40, ⊟ = 21.0' LT., ⊟⊟ = 1.0' LT.



GUARDRAIL DETAIL

RIGHT SIDE: STA. 165+37.50 TO STA. 169+00.00
RIGHT SIDE: STA. 173+37.50 TO STA. 176+75.00
RIGHT SIDE: STA. 181+00.00 TO STA. 183+45.00

TYPICAL SECTIONS - S.R. 43

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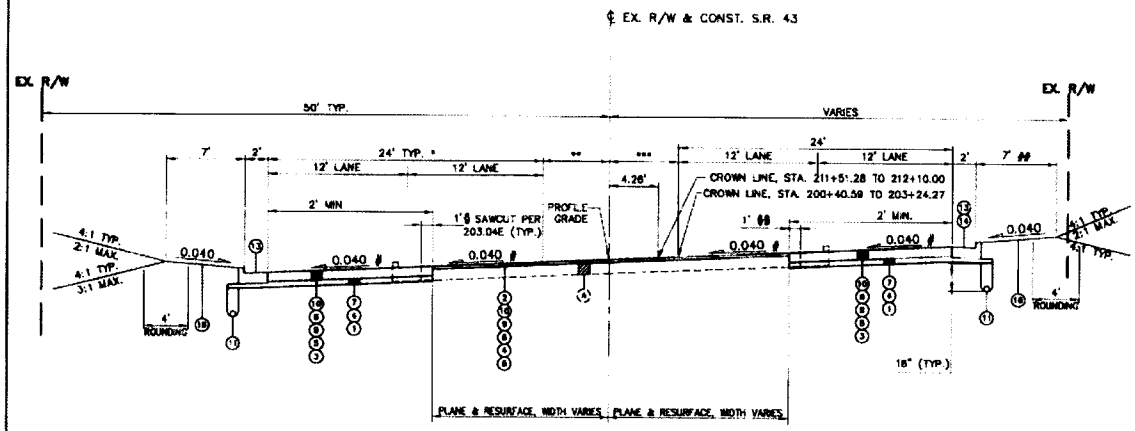


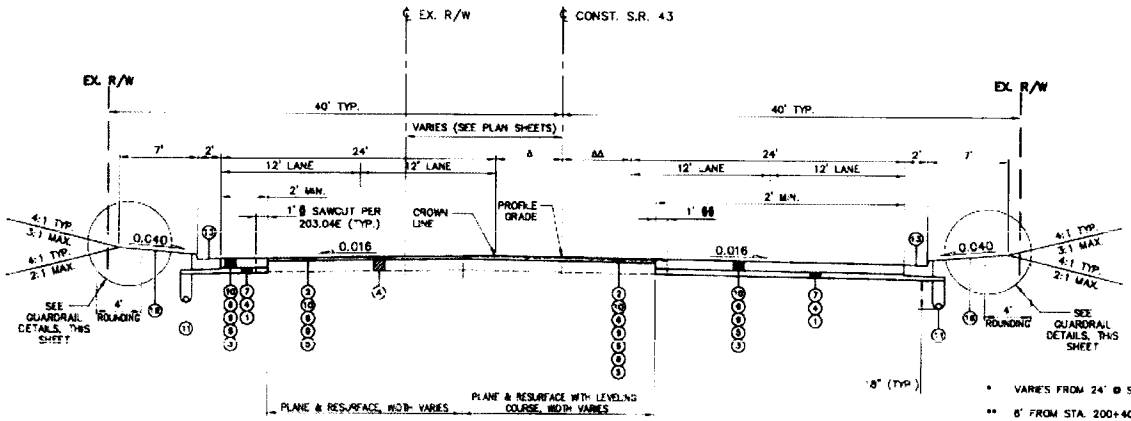
SUPERELEVATED SECTION – S.R. 43 (NORTH AURORA ROAD)

STA. 200+68.56 TO STA. 212+10.00 = 1143.44 FT.

LEGEND

1. ITEM 204 – SUBGRADE COMPACTION
2. ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE (T=VARIES)
3. ITEM 302 – ASPHALT CONCRETE BASE, PG64-22 (T=6")
4. ITEM 304 – AGGREGATE BASE (DEPTH VARIES TO MATCH EXISTING SUBGRADE DEPTH, MIN. T=6," AVG. T=13")
5. ITEM 407 – TACK COAT
6. ITEM 407 – TACK COAT FOR INTERMEDIATE COURSE
7. ITEM 408 – PRIME COAT
8. ITEM 448 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22 (T=VARIES, LEVELING COURSE)
9. ITEM 448 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22 (T=1.75")
10. ITEM 448 – ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (T=1.25")
11. ITEM 605 – 6" BASE PIPE UNDERDRAINS
12. ITEM 608 – 4" CONCRETE WALK
13. ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2
14. ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
15. ITEM 609 – CURB, TYPE 6
16. ITEM 659 – SEEDING AND MULCHING

(A) EXISTING ASPHALT CONCRETE PAVEMENT (T=VARIES)



5 LANE SECTION – S.R. 43 (NORTH AURORA ROAD)
LEFT-SIDED CROWN LINE

	STA. 158+40.00 TO STA. 160+50.00	= 210.00 FT.	Δ = 0' TO 3.50'	ΔΔ = 0' TO 6'
	STA. 160+50.00 TO STA. 162+00.00	= 150.00 FT.	Δ = 3.50' TO 6'	ΔΔ = 6'
###	STA. 162+00.00 TO STA. 164+25.00	= 225.00 FT.	Δ = 6'	ΔΔ = 6'
	STA. 183+45.00 TO STA. 185+55.00	= 210.00 FT.	Δ = 0' TO 3.50'	ΔΔ = 0' TO 6'
	STA. 185+55.00 TO STA. 187+05.00	= 150.00 FT.	Δ = 3.50' TO 6'	ΔΔ = 6'
####	STA. 187+05.00 TO STA. 198+00.00	= 1095.00 FT.	Δ = 6'	ΔΔ = 6'
		= 2040.00 FT.		

* VARIES FROM 24' @ STA. 210+15.00 TO 2'.18' @ STA. 212+10.00

** 6' FROM STA. 200+40.59 TO STA. 210+15.00
VARIES 6' TO 0' FROM STA. 210+15.00 TO STA. 212+10.00

*** 6' FROM STA. 200+40.59 TO STA. 211+76.74
VARIES 6' TO 5.69' FROM STA. 211+76.74 TO STA. 212+10.00

\# SEE SUPERELEVATION TABLE, SHEET 187

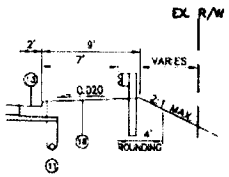
\#\# VARIES FROM STA. 208+50 TO STA. 212+10, SEE CROSS-SECTIONS.

CROWNLINE TRANSFERS FROM 6' LT. TO 6' RT. WHILE MAINTAINING A PAVEMENT WIDTH OF 64' F/F

STA. 163+75 TO STA. 164+75
STA. 197+50 TO STA. 198+50

SAWCUT OFFSETS (CONTINUED FROM SHEET 5)

STA. 158+40 TO STA. 159+00, § = 21.0' LT., §§ = 1.0' LT.
STA. 159+00 TO STA. 161+50, § = 21.0' LT., §§ VARIES 1.0' LT. TO 11.0' RT.
STA. 161+50 TO STA. 162+50, § = 21.0' LT., §§ VARIES 11.0' RT. TO 23.0' RT.
STA. 162+50 TO STA. 163+54, § = 21.0' LT., §§ = 23.0'
STA. 163+54 TO STA. 164+26, § VARIES 21.0' LT. TO 25.0' LT., §§ VARIES 23.0' RT. TO 19.5' RT.
STA. 164+25 TO STA. 164+96, § VARIES 25.0' LT. TO 29.0' LT., §§ VARIES 19.5' RT. TO 16.0' RT.
STA. 164+96 TO STA. 165+50, § = 29.0' LT., §§ VARIES 16.0' RT. TO 9.0' RT.
STA. 165+50 TO STA. 167+50, § = 29.0' LT., §§ = 9.0' RT.
STA. 167+50 TO STA. 170+65, § VARIES 29.0' LT. TO 21.0' LT., §§ = 9.0' RT.
STA. 170+65 TO STA. 174+45, § = 21.0' LT., §§ = 9.0' RT.
STA. 174+45 TO STA. 175+95, § = 21.0' LT., §§ VARIES 9.0' RT. TO 6.1' RT.
STA. 175+95 TO STA. 177+50, § VARIES 21.0' LT. TO 19.0' LT., §§ VARIES 6.1' RT. TO 3.1' RT.
STA. 177+50 TO STA. 178+05, § = 19.0' LT., §§ VARIES 3.1' RT. TO 2.0' RT.
STA. 178+05 TO STA. 180+05, § = 19.0' LT., §§ = 2.0' RT.
STA. 180+05 TO STA. 180+97, § VARIES 19.0' LT. TO 18.0' LT., §§ = 2.0' RT.
STA. 180+97 TO STA. 183+45, § = 18.0' LT., §§ = 2.0' RT.
STA. 183+45 TO STA. 187+00, § = 18.0' LT., §§ = 2.0' RT.
STA. 187+00 TO STA. 188+63, § VARIES 18.0' LT. TO 15.0' LT., §§ VARIES 2.0' RT. TO 6.4' RT.
STA. 188+63 TO STA. 190+11, § VARIES 15.0' LT. TO 12.0' LT., §§ VARIES 6.4' RT. TO 9.0' RT.
STA. 190+11 TO STA. 193+21, § = 12.0' LT., §§ = 9.0' RT.
STA. 193+21 TO STA. 197+06, § VARIES 12.0' RT. TO 21.0' RT., §§ = 9.0' RT.
STA. 197+09 TO STA. 198+00, § 21.0' LT., §§ VARIES 9.0' RT. TO 16.6' RT.
STA. 198+00 TO STA. 198+52, § = 21.0' LT., §§ VARIES 16.6' RT. TO 21.0' RT.
STA. 198+52 TO STA. 208+00, § = 21.0' LT., §§ = 21.0' RT.
STA. 208+00 TO STA. 208+00, § = 21.0' LT., §§ VARIES 21.0' RT. TO 29.0' RT
STA. 208+00 TO STA. 211+77, § = 21.0' LT., §§ = 29.0' RT.
STA. 211+77 TO STA. 212+10, § = 21.0' LT., §§ VARIES 29.0' RT. TO 28.7' RT.



GUARDRAIL DETAIL

LEFT SIDE: STA. 186+00.00 TO STA. 188+85.00
RIGHT SIDE: STA. 183+45.00 TO STA. 188+00.00

CALCULATED JFN CHECKED FDH

TYPICAL SECTIONS - S.R. 43

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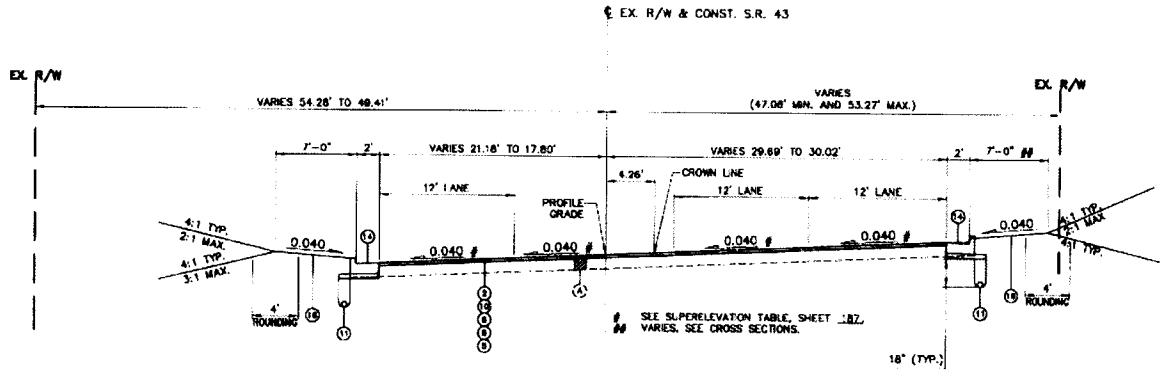

RESURFACING SECTION – S.R. 43 (NORTH AURORA ROAD)

STA. 212+10.00 TO STA. 213+65.00 = 155.00 FT.
= 155.00 FT.

LEGEND

1. ITEM 204 – SUBGRADE COMPACTION
2. ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE (T=VARIES)
3. ITEM 302 – ASPHALT CONCRETE BASE, PG64-22 (T=6")
4. ITEM 304 – AGGREGATE BASE (DEPTH VARIES TO MATCH EXISTING SUBGRADE DEPTH, MIN. T=6," AVG. T=13")
5. ITEM 407 – TACK COAT
6. ITEM 407 – TACK COAT FOR INTERMEDIATE COURSE
7. ITEM 408 – PRIME COAT
8. ITEM 448 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22 (T=VARIES, LEVELING COURSE)
9. ITEM 448 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22 (T=1.75")
10. ITEM 448 – ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (T=1.25")
11. ITEM 605 – 6" BASE PIPE UNDERDRAINS
12. ITEM 608 – 4" CONCRETE WALK
13. ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2
14. ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
15. ITEM 609 – CURB, TYPE 6
16. ITEM 659 – SEEDING AND MULCHING

(A) EXISTING ASPHALT CONCRETE PAVEMENT (T=VARIES)

CALCULATED MEF
CHECKED RDN

TYPICAL SECTIONS - S.R. 43

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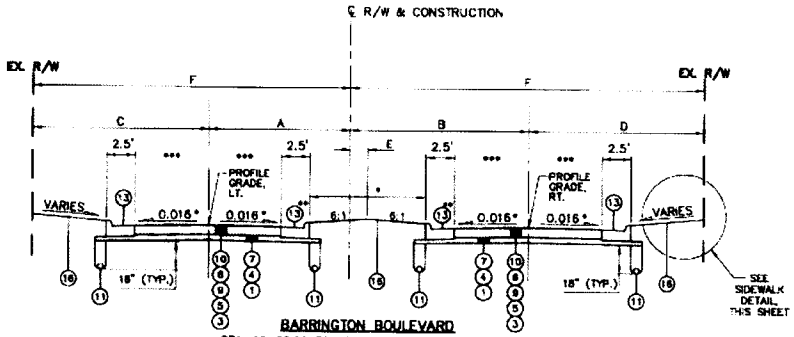
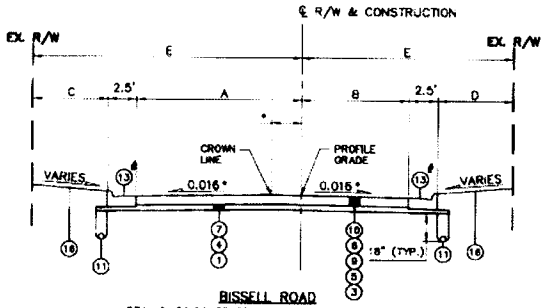
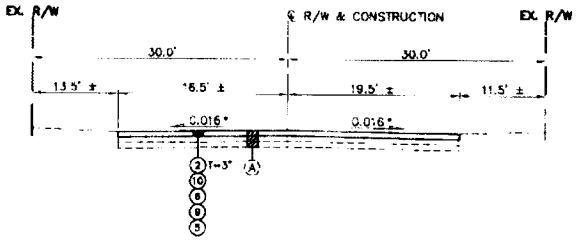


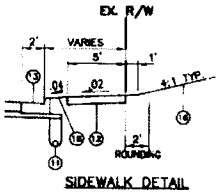
BARRINGTON BOULEVARD
STA. 10+30.00 TO STA. 11+00.00 = 70.00 FT.
WYNDHAM LANE
STA. 10+24.00 TO STA. 10+70.00 = 46.00 FT.
SYCAMORE DRIVE
STA. 8+70.00 TO STA. 9+70.00 = 100.00 FT



BISSELL ROAD
STA. 8+50.00 TO STA. 9+49.84 = 99.84 FT.
AURORA LAKE ROAD
STA. 8+20.00 TO STA. 9+68.68 = 148.68 FT.
TREAT ROAD
STA. 11+31.55 TO STA. 11+50.00 = 18.45 FT.
SQUIRES ROAD
STA. 10+34.55 TO STA. 12+01.24 = 166.69 FT.



RESURFACED SECTION – TREAT ROAD
STA. 11+50.00 TO STA. 11+75.00 = 25.00 FT.



SIDEWALK DETAIL
RIGHT SIDE BARRINGTON BLVD. ONLY

LEGEND

1. ITEM 204 – SUBGRADE COMPACTION
2. ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE (T=VARIES)
3. ITEM 302 – ASPHALT CONCRETE BASE, PG64-22 (T=6")
4. ITEM 304 – AGGREGATE BASE (DEPTH VARIES TO MATCH EXISTING SUBGRADE DEPTH, MIN. T=6," AVG. T=13")
5. ITEM 407 – TACK COAT
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9. ITEM 448 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22 (T=1.75")
10. ITEM 448 – ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (T=1.25")
11. ITEM 605 – 6" BASE PIPE UNDERDRAINS
12. ITEM 608 – 4" CONCRETE WALK
13. ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2
14. ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
15. ITEM 609 – CURB, TYPE 6
16. ITEM 659 – SEEDING AND MULCHING

(A) EXISTING ASPHALT CONCRETE PAVEMENT (T=VARIES)

ROAD	A	B	C	D	E	F
BARRINGTON BLVD.	16.14'	24.56'	33.86'	25.44'	4.32'	50.00'
WYNDHAM LN.	11.34'	11.79'	18.66'	18.21'	0.27'	50.00'
SYCAMORE DR.	21.57'	22.15'	28.43'	27.85'	0.00'	50.00'

* SEE INTERSECTION DETAIL
** SYCAMORE DR. USE: (15).
*** FOR PAVEMENT WIDTHS, SEE INTERSECTION DETAIL.

ROAD	A	B	C	D	E
BISSELL RD.	16.91'	5.62'	VARIES***	VARIES***	25.00'
AURORA LAKE RD.	VARIES*	12.00'	VARIES***	VARIES***	VARIES*
TREAT RD.	18.57'	19.48'	VARIES***	VARIES***	30.00'
SQUIRES RD.	VARIES*	VARIES*	VARIES***	VARIES***	VARIES**

* SEE INTERSECTION DETAIL
** VARIES 40.73' TO 25.00' RT. AND 17.70' TO 25.00' LT.
*** SEE CROSS SECTIONS
\# SQUIRES RD. USE: (14).

CALCULATED PM
CHECKED PM

TYPICAL SECTIONS - SIDE ROADS

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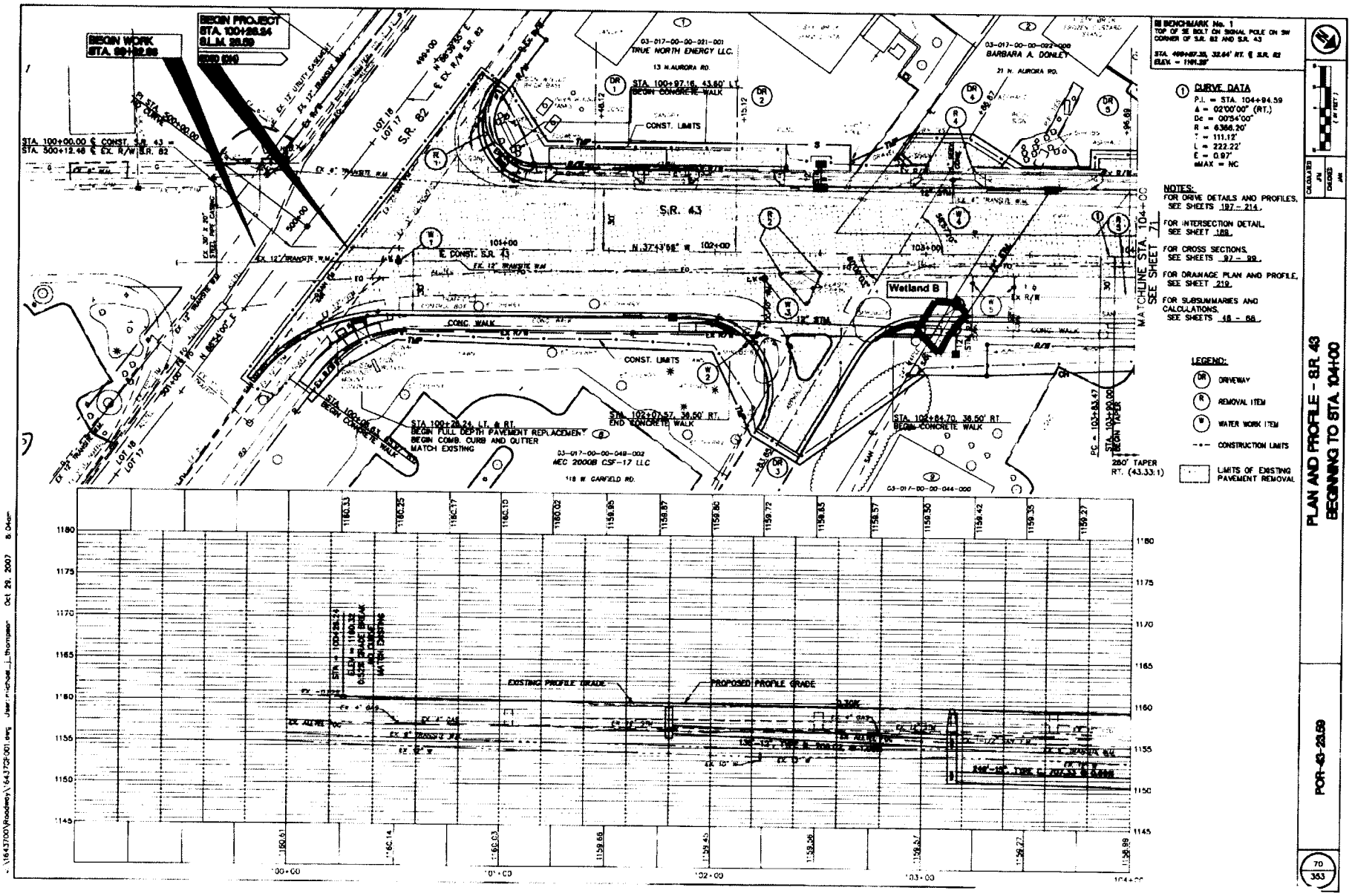

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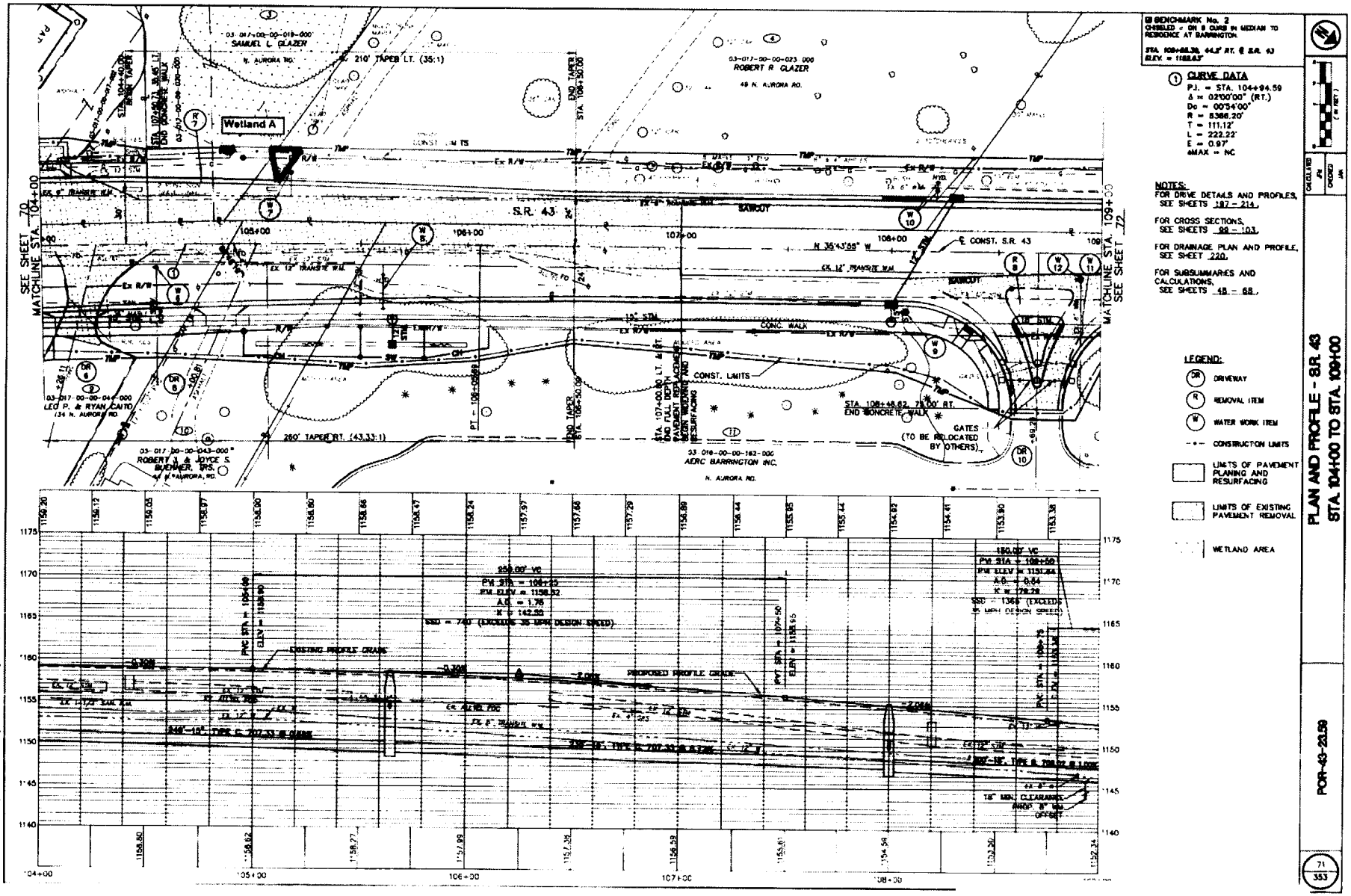

PLAN AND PROFILE - S.R. 43
STA. 104+00 TO STA. 109+00

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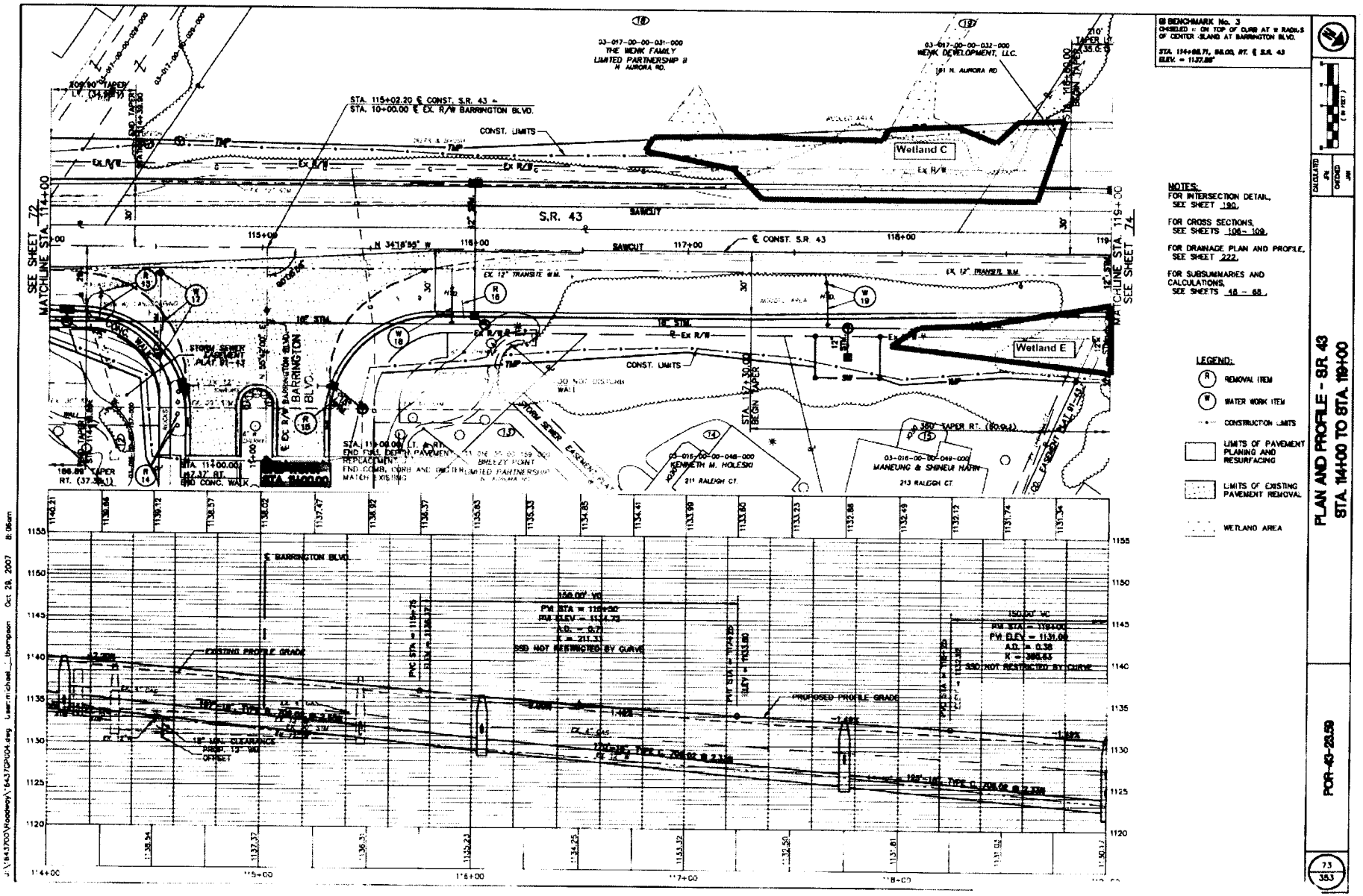

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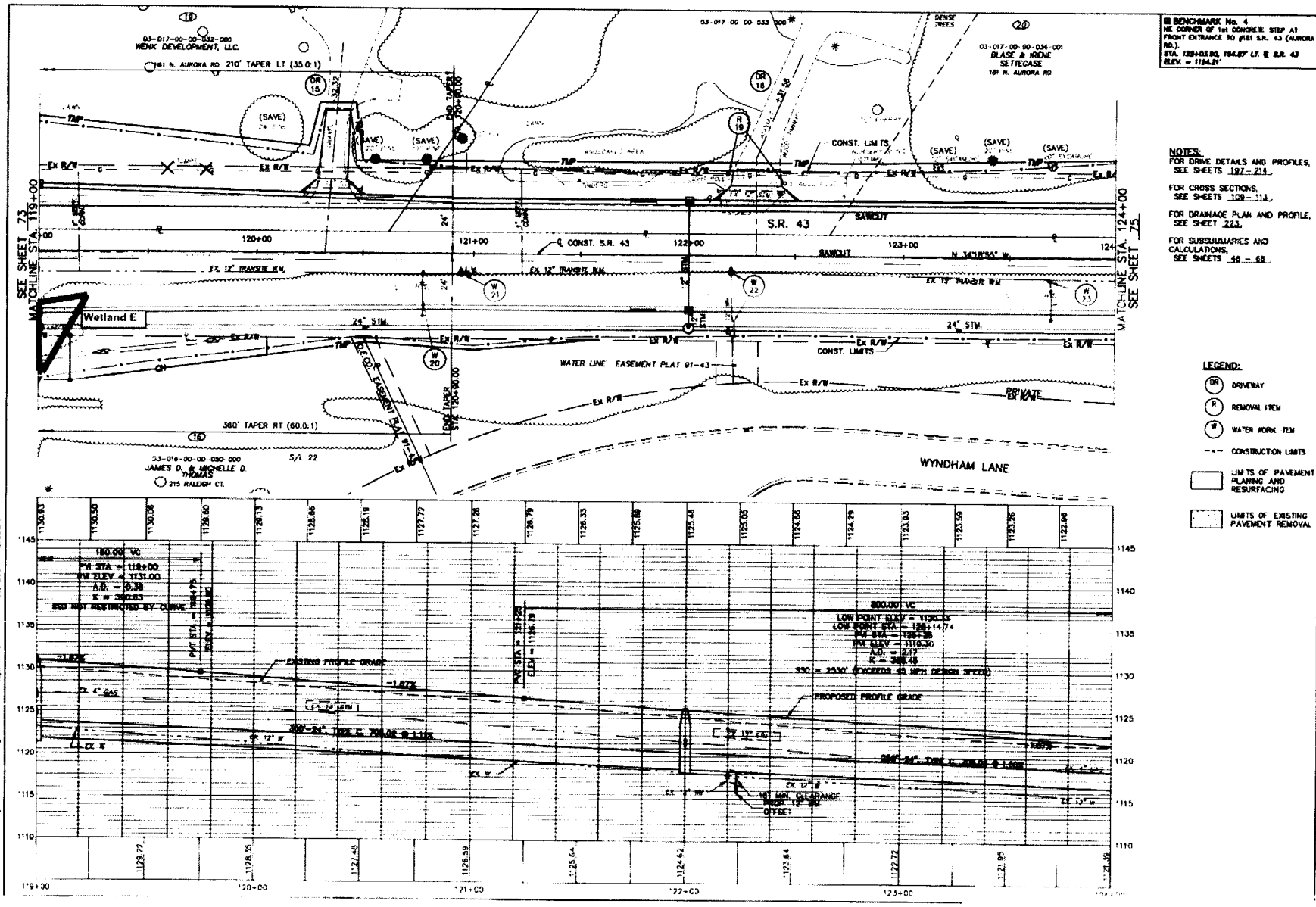

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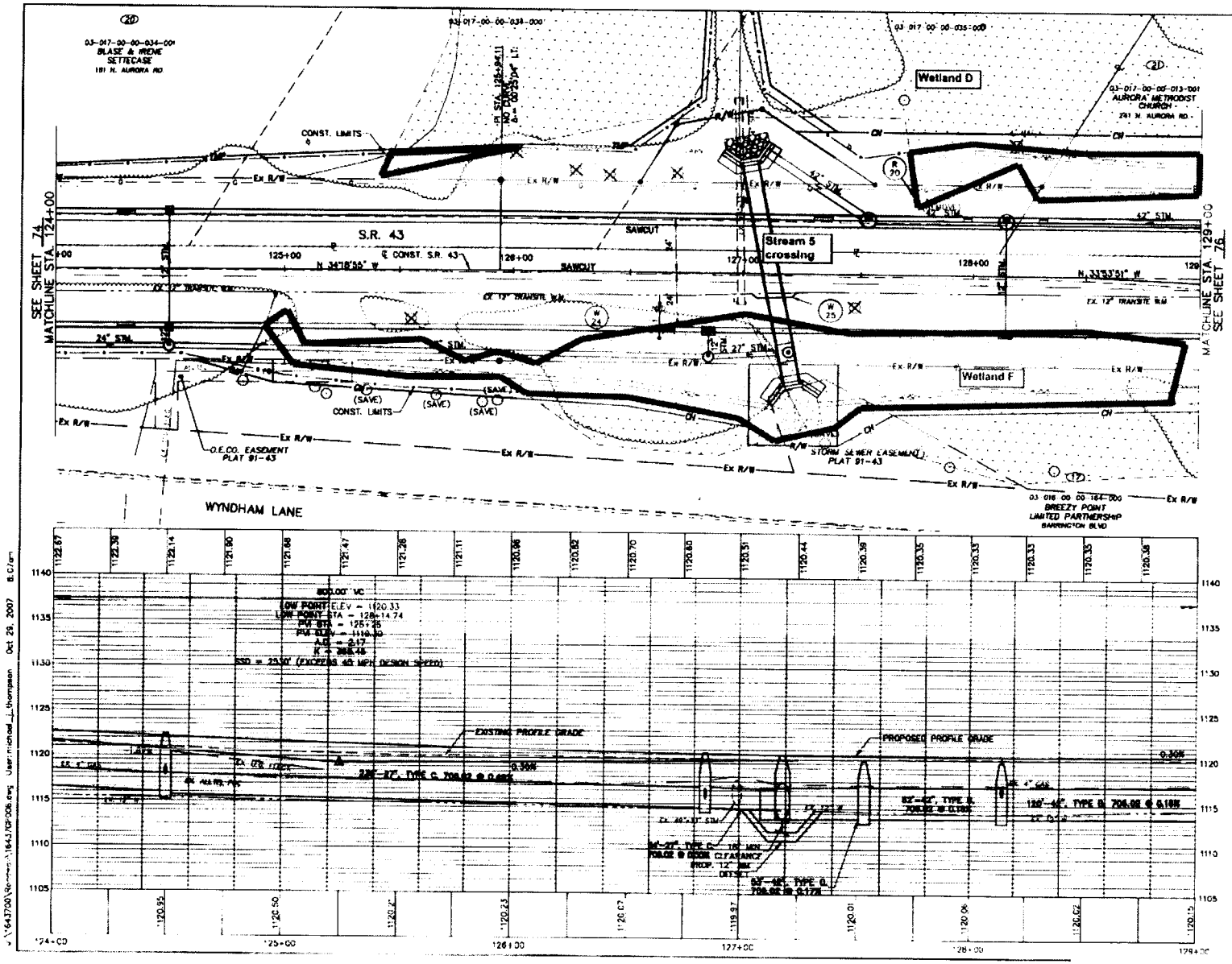

BENCHMARK No. 4
NE CORNER OF 1st CONCRETE STEP AT FRONT ENTRANCE TO (#81 S.R. 43 (AURORA RD.).
STA. 125+63.68, 184.67' LT. ℄ S.R. 43
ELEV. = 1124.91'

BENCHMARK No. 5
CHISELED □ ON TOP OF CURB AT W RADIUS OF CENTER ISLAND AT BARRINGTON GOLF CLUB PRIVATE DR.
STA. 132+65.43, 68.89' RT. ℄ S.R. 43
ELEV. = 1128.79'

NOTES:
FOR CROSS SECTIONS, SEE SHEETS 113 – 116.
FOR DRAINAGE PLAN AND PROFILE, SEE SHEET 224.
FOR SUBSUMMARIES AND CALCULATIONS, SEE SHEETS 48 – 68.
FOR CULVERT DETAIL, SEE SHEET 247.
FOR CULVERT CROSS SECTIONS, SEE SHEET 248.

LEGEND:
- (R) REMOVAL ITEM
- (W) WATER WORK ITEM
- CONSTRUCTION LIMITS
- LIMITS OF PAVEMENT PLANING AND RESURFACING
- LIMITS OF EXISTING PAVEMENT REMOVAL
- WETLAND AREA

PLAN AND PROFILE – S.R. 43
STA. 124+00 TO STA. 129+00

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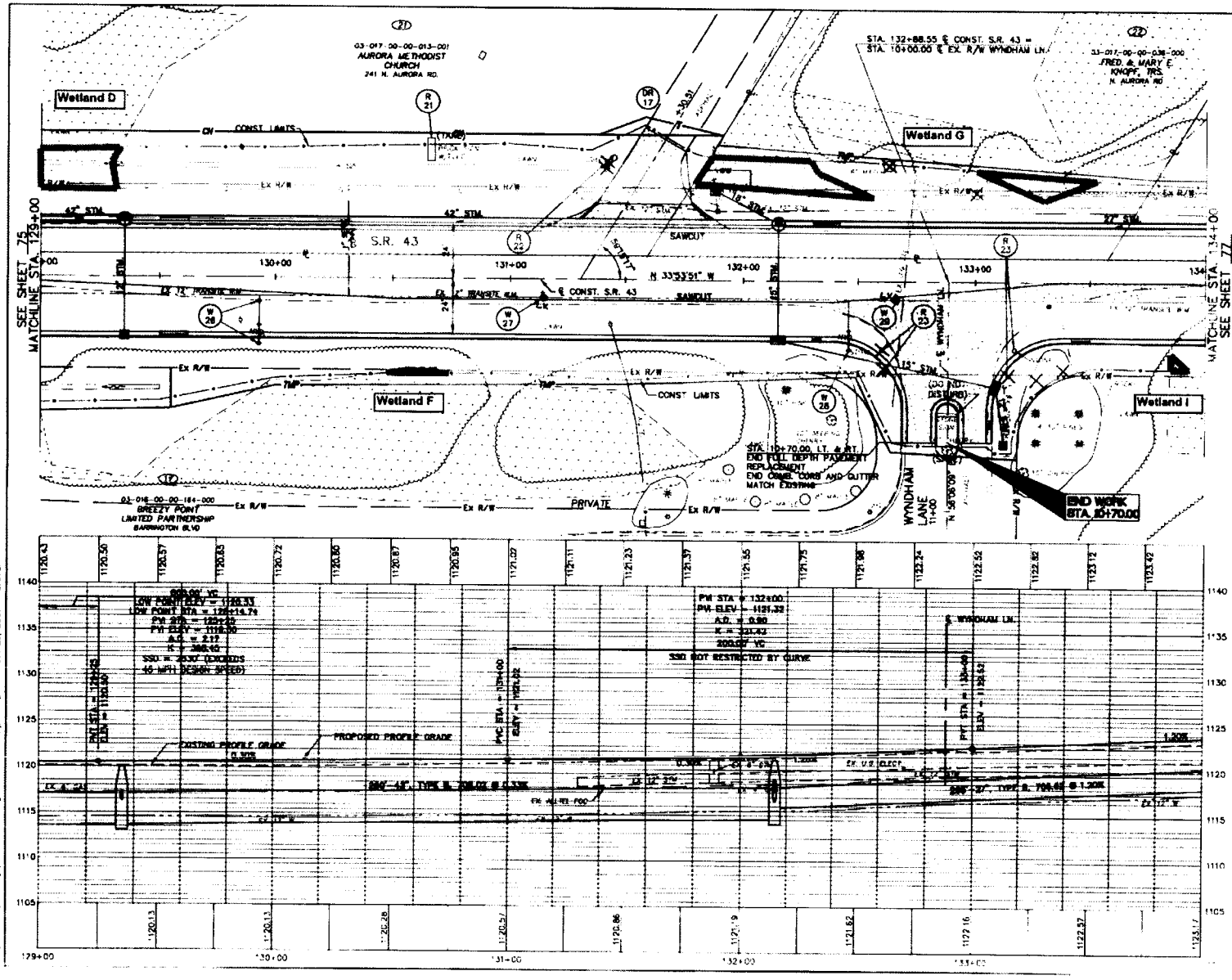

BENCHMARK No. 5
CHISELED + ON TOP OF CURB AT W RADIUS OF CENTER ISLAND AT BARRINGTON GOLF CLUB PRIVATE DR.
STA. 132+88.55, 62.88' RT. ℄ S.R. 43
ELEV. = 1122.70'

NOTES:
FOR DRIVE DETAILS AND PROFILES, SEE SHEETS 197 – 214.
FOR INTERSECTION DETAIL, SEE SHEET 191.
FOR CROSS SECTIONS, SEE SHEETS 116 – 119.
FOR DRAINAGE PLAN AND PROFILE, SEE SHEET 225.
FOR SUBSUMMARIES AND CALCULATIONS, SEE SHEETS 48 – 88.

LEGEND:
- DR DRIVEWAY
- R REMOVAL ITEM
- W WATER WORK ITEM
- CONSTRUCTION LIMITS
- LIMITS OF PAVEMENT PLANING AND RESURFACING
- LIMITS OF EXISTING PAVEMENT REMOVAL
- WETLAND AREA

CALCULATED JN
CHECKED AR

PLAN AND PROFILE - S.R. 43
STA. 129+00 TO STA. 134+00

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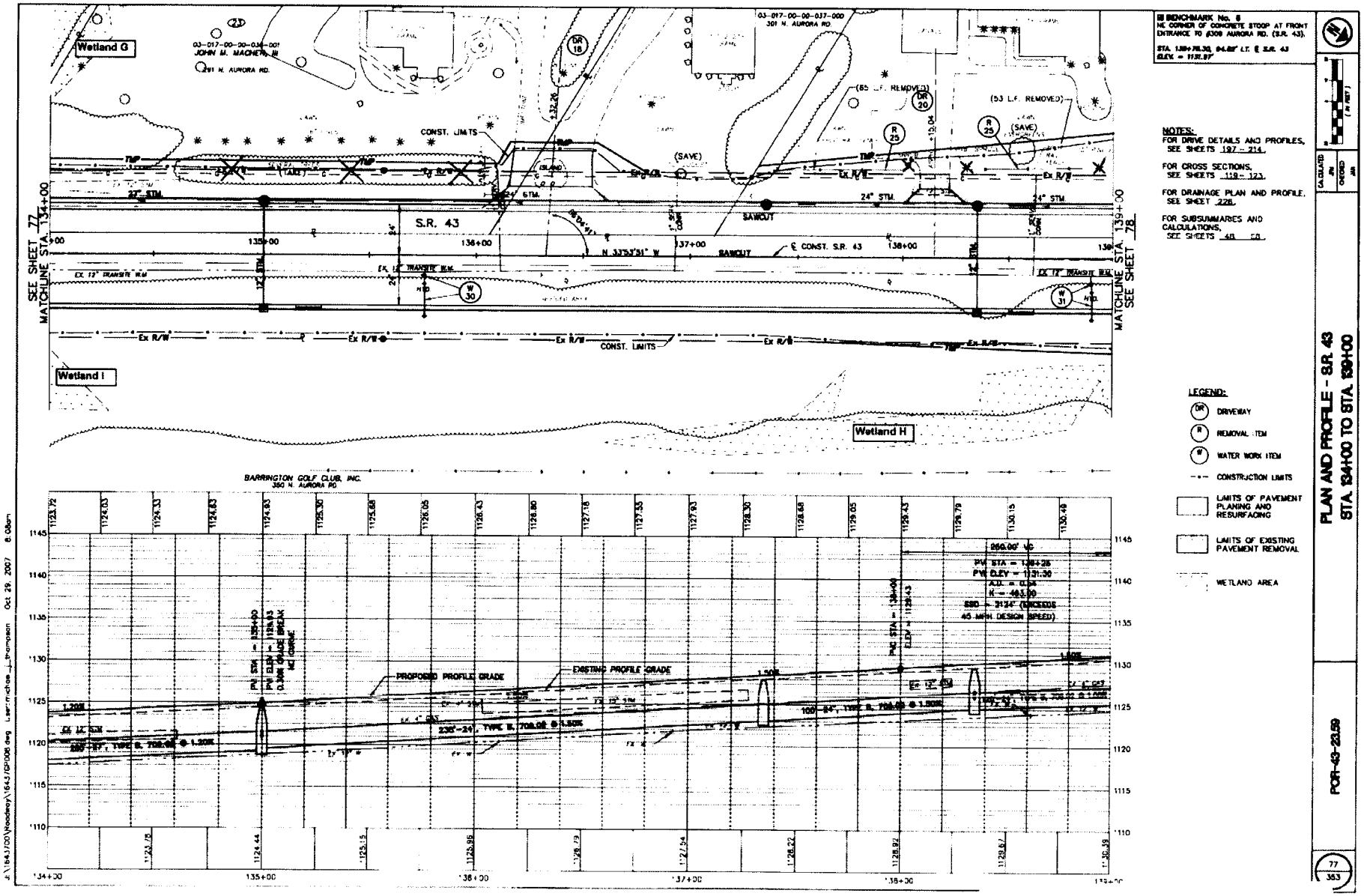

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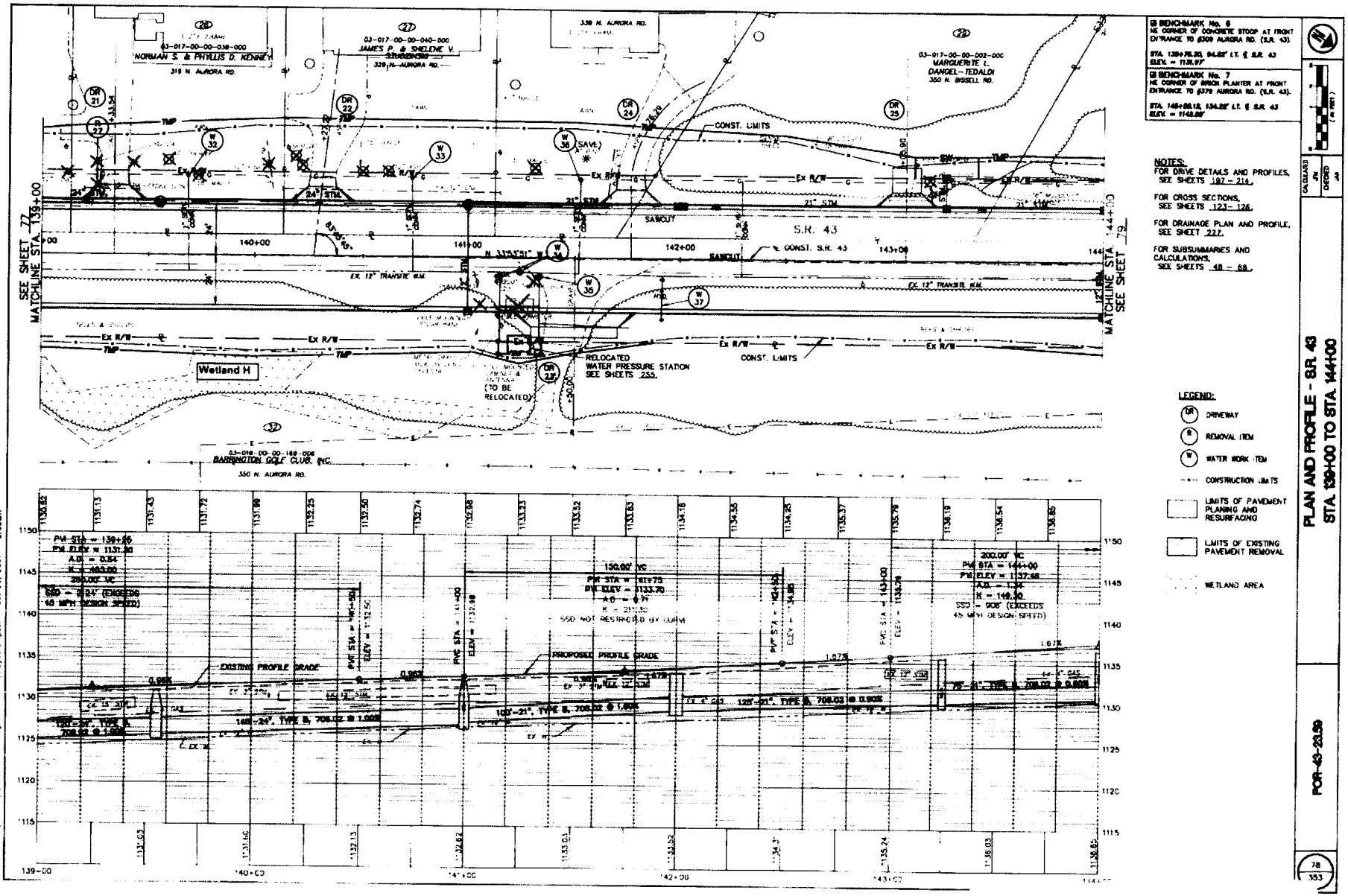

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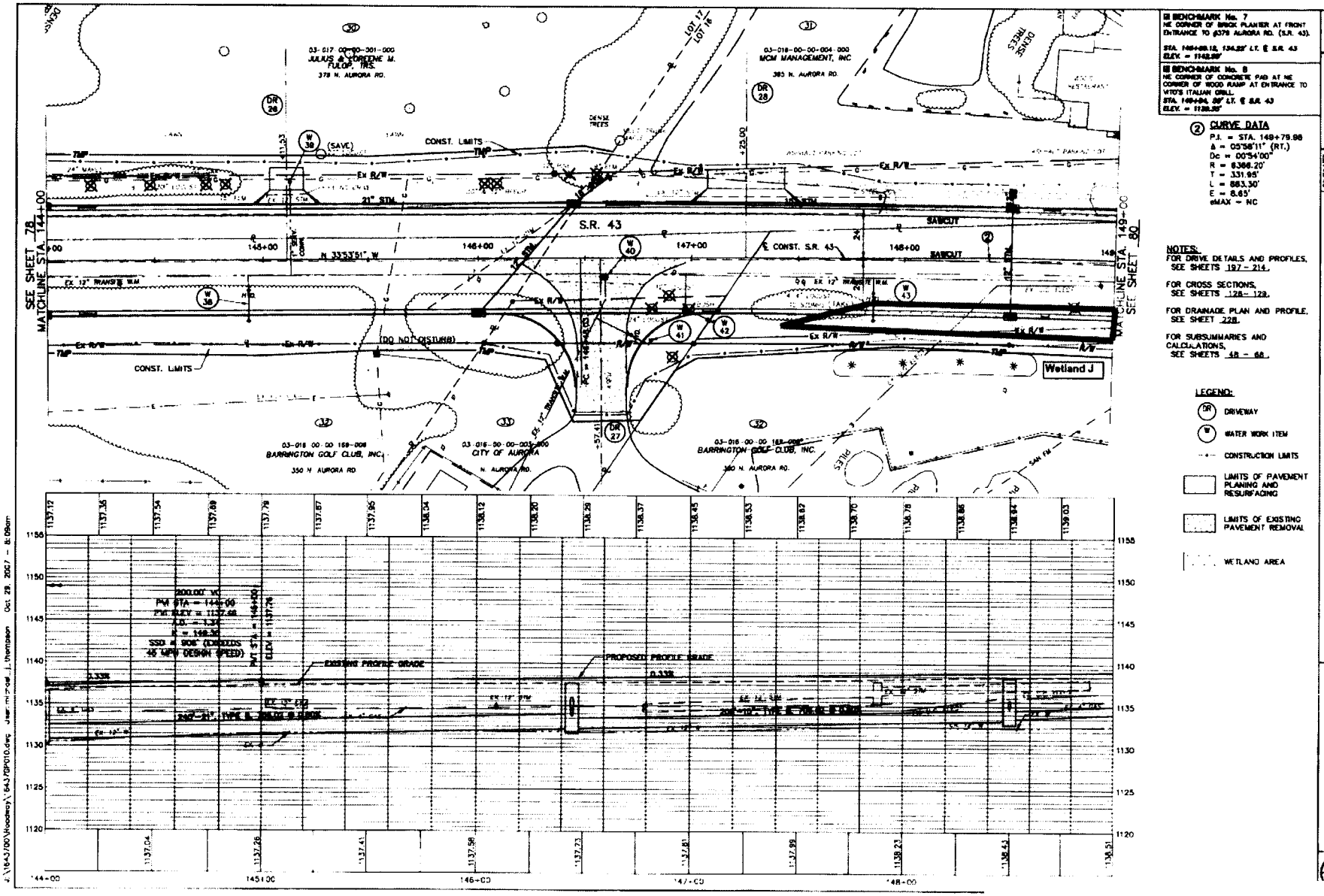

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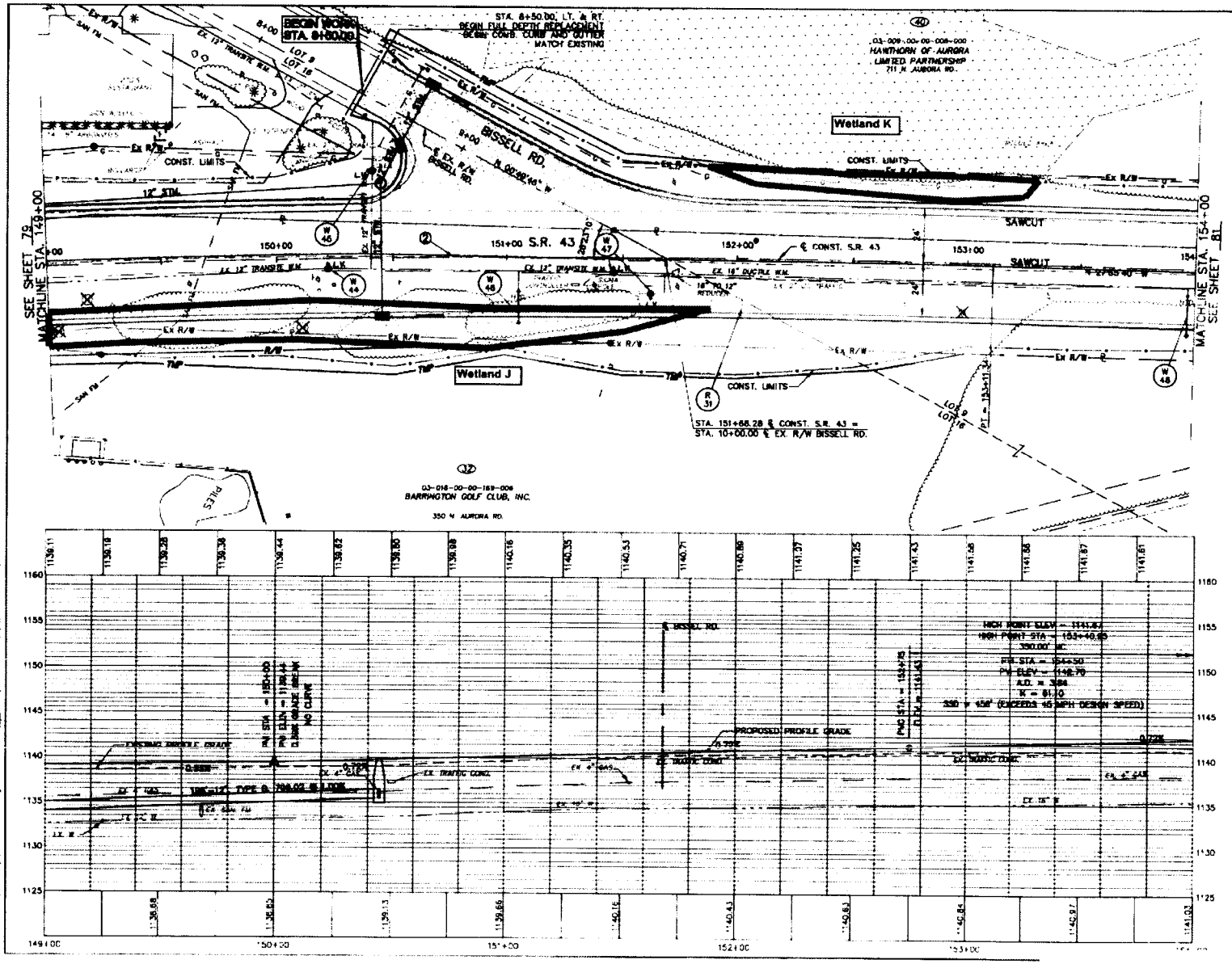

BENCHMARK No. 8
NE CORNER OF CONCRETE PAD AT NE CORNER OF WOOD RAMP AT ENTRANCE TO VITO'S ITALIAN GRILL
STA. 149+94, 88' LT. ℄ S.R. 43
ELEV. = 1138.35'

② CURVE DATA
P.I. = STA. 149+79.98
Δ = 05°58'11" (RT.)
Dc = 00°54'00"
R = 6366.20'
T = 331.95'
L = 663.30'
E = 8.65'
eMAX = NC

NOTES:
FOR INTERSECTION DETAIL, SEE SHEET 192.
FOR CROSS SECTIONS, SEE SHEETS 129 - 133.
FOR DRAINAGE PLAN AND PROFILE, SEE SHEET 229.
FOR SUBSUMMARIES AND CALCULATIONS, SEE SHEETS 46 - 68.
* TRANSITION CURB HEIGHT FROM 0" TO 6" AND TAPER CURB OFFSET FROM 22.08' TO 18.91' LEFT AND 10.45' TO 7.62' RIGHT IN 10'.

LEGEND:
- REMOVAL ITEM
- WATER WORK ITEM
- CONSTRUCTION LIMITS
- LIMITS OF PAVEMENT PLANING AND RESURFACING
- LIMITS OF EXISTING PAVEMENT REMOVAL
- WETLAND AREA

CALCULATED JN
CHECKED JM

PLAN AND PROFILE - S.R. 43
STA. 149+00 TO STA. 154+00

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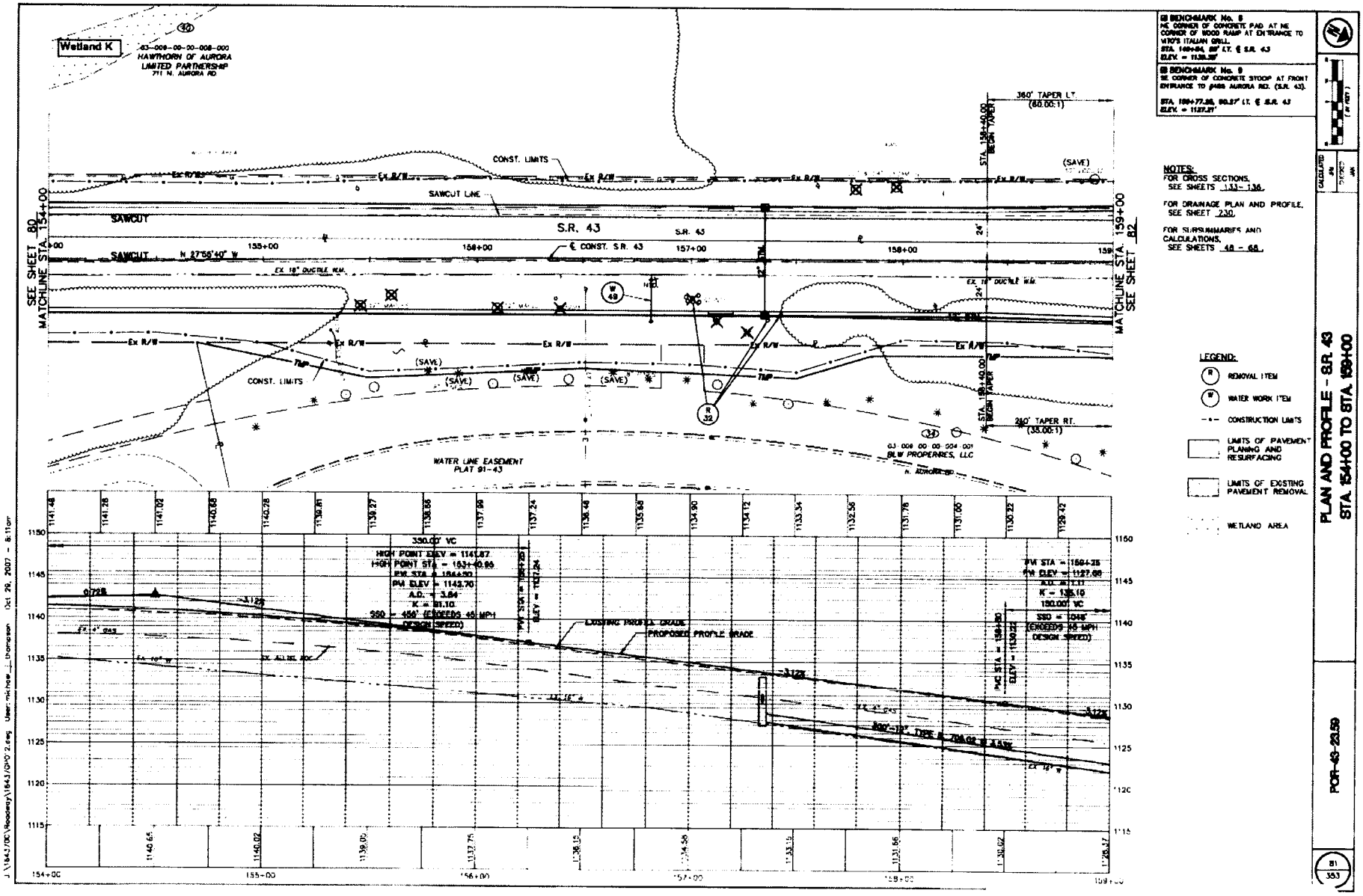

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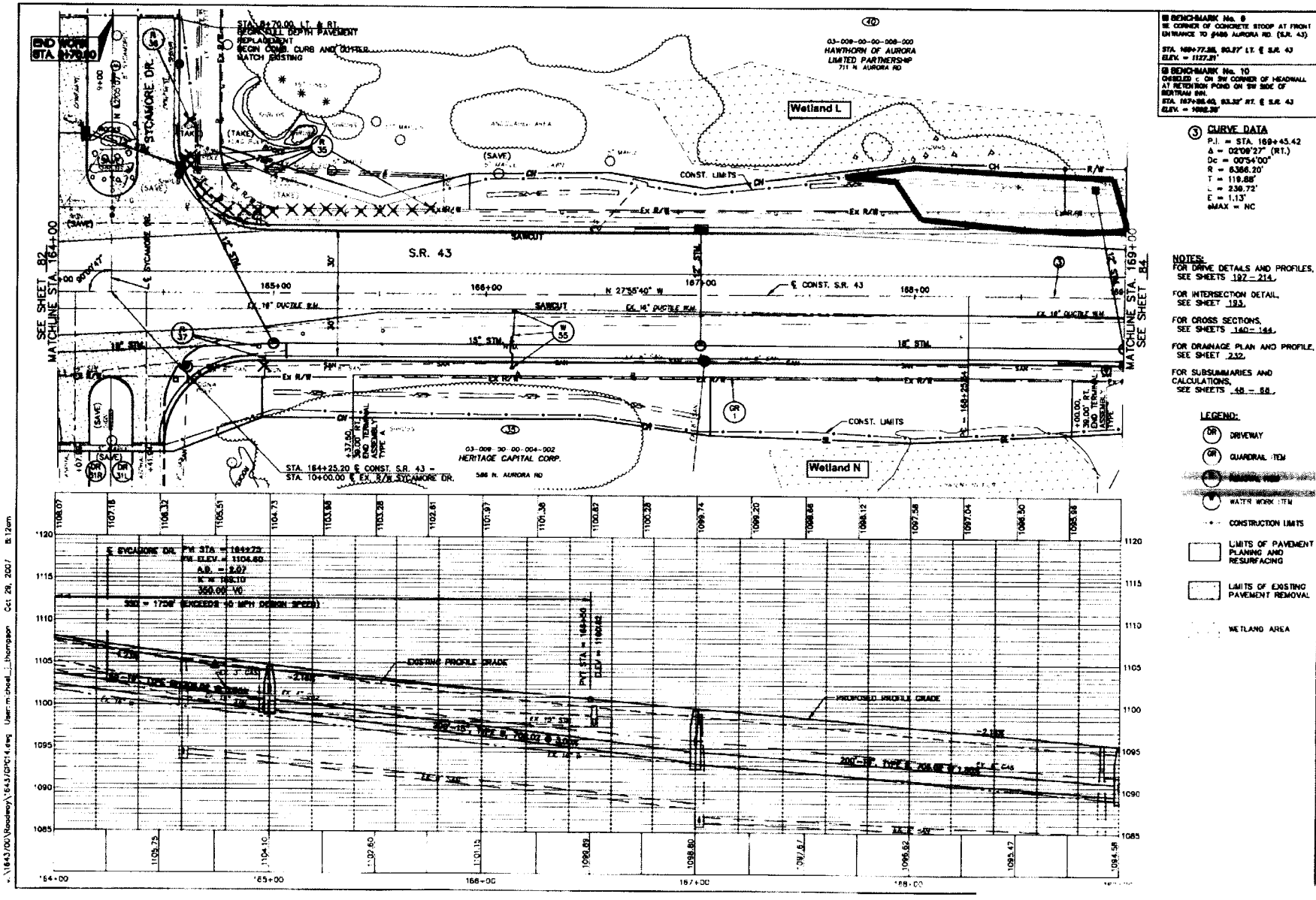

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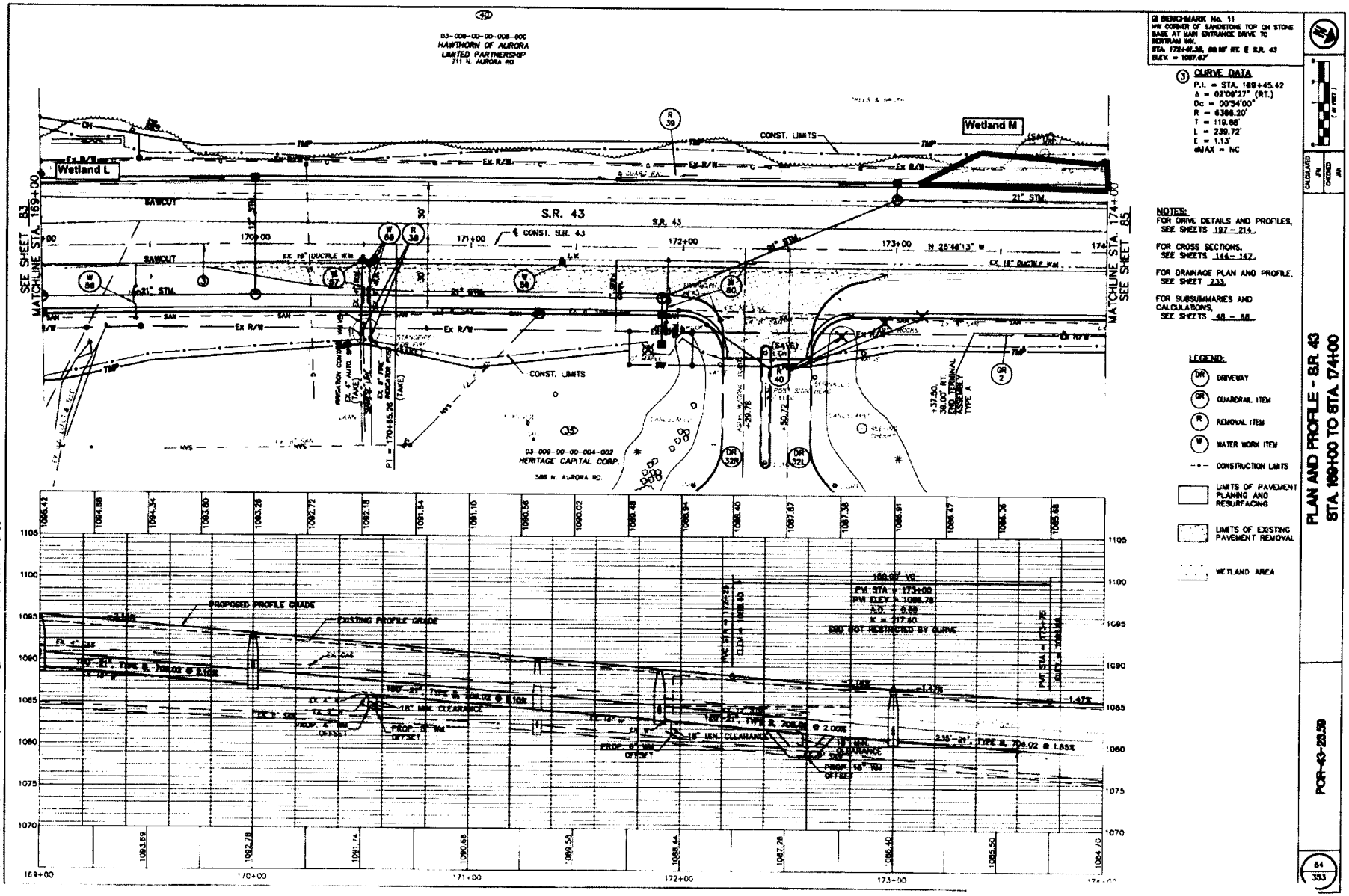

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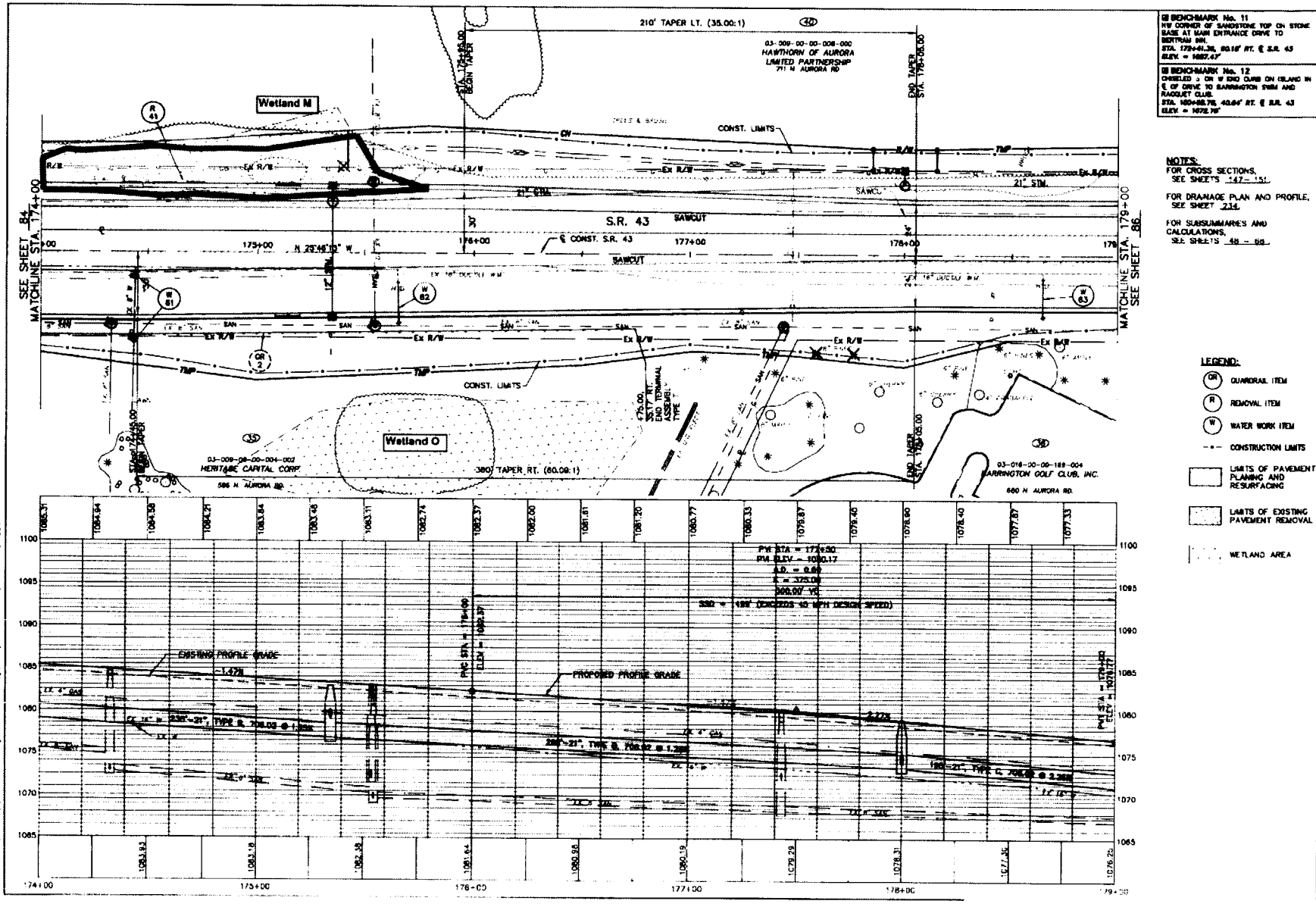

BENCHMARK No. 11
NW CORNER OF SANDSTONE TOP ON STONE BASE AT MAIN ENTRANCE DRIVE TO BERTRAM INN.
STA. 173+41.35, 60.18' RT. ℄ S.R. 43
ELEV. = 1087.47'

BENCHMARK No. 12
CHISELED □ ON W END CURB ON ISLAND IN ℄ OF DRIVE TO BARRINGTON SWIM AND RACQUET CLUB.
STA. 180+88.78, 40.64' RT. ℄ S.R. 43
ELEV. = 1072.78'

NOTES:
FOR CROSS SECTIONS, SEE SHEETS 147 - 151
FOR DRAINAGE PLAN AND PROFILE, SEE SHEET 234
FOR SUBSUMMARIES AND CALCULATIONS, SEE SHEETS 48 - 68

LEGEND:
- GR GUARDRAIL ITEM
- R REMOVAL ITEM
- W WATER WORK ITEM
- CONSTRUCTION LIMITS
- LIMITS OF PAVEMENT PLANING AND RESURFACING
- LIMITS OF EXISTING PAVEMENT REMOVAL
- WETLAND AREA

CALCULATED JN
CHECKED JMR

PLAN AND PROFILE - S.R. 43
STA. 174+00 TO STA. 179+00

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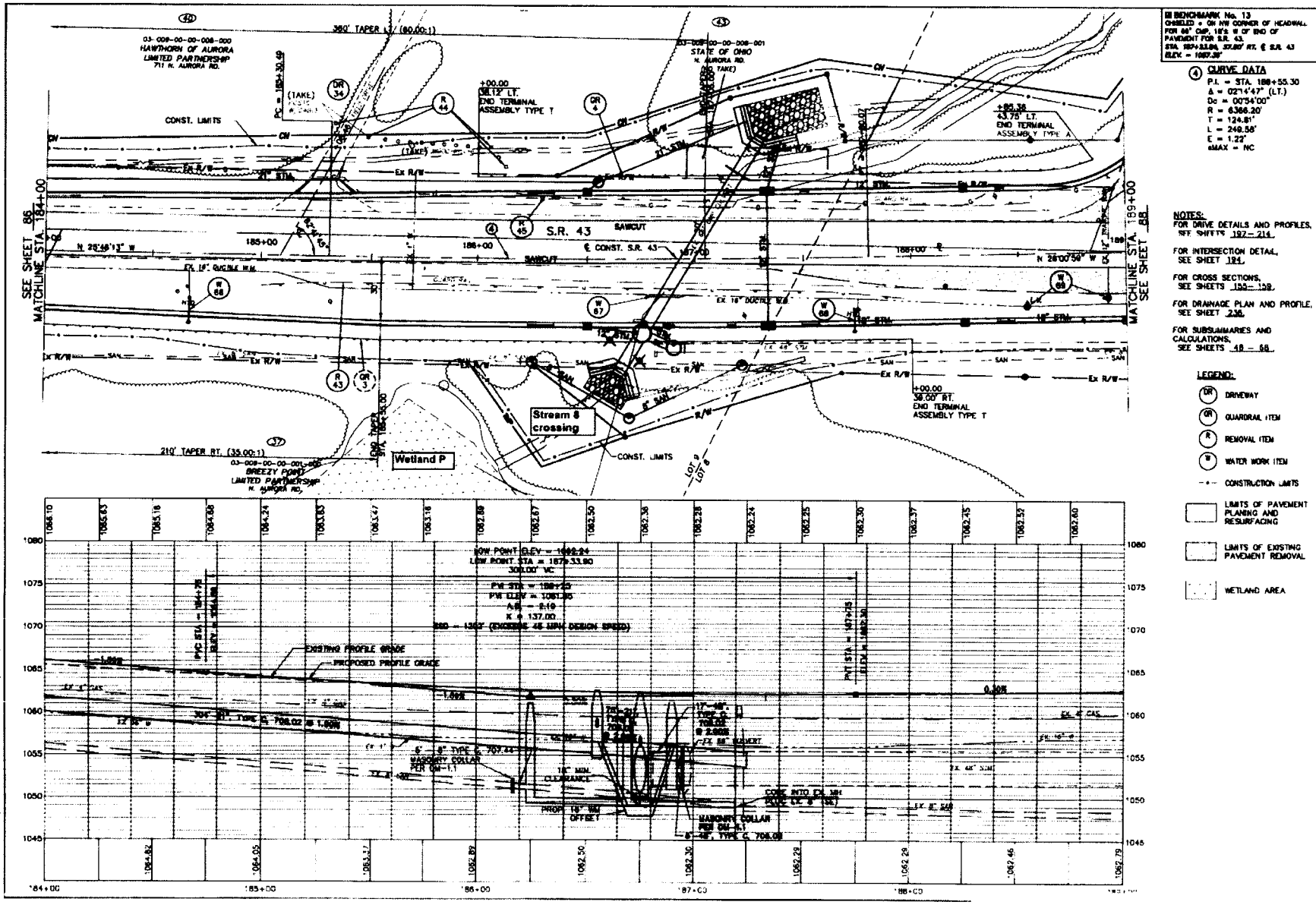

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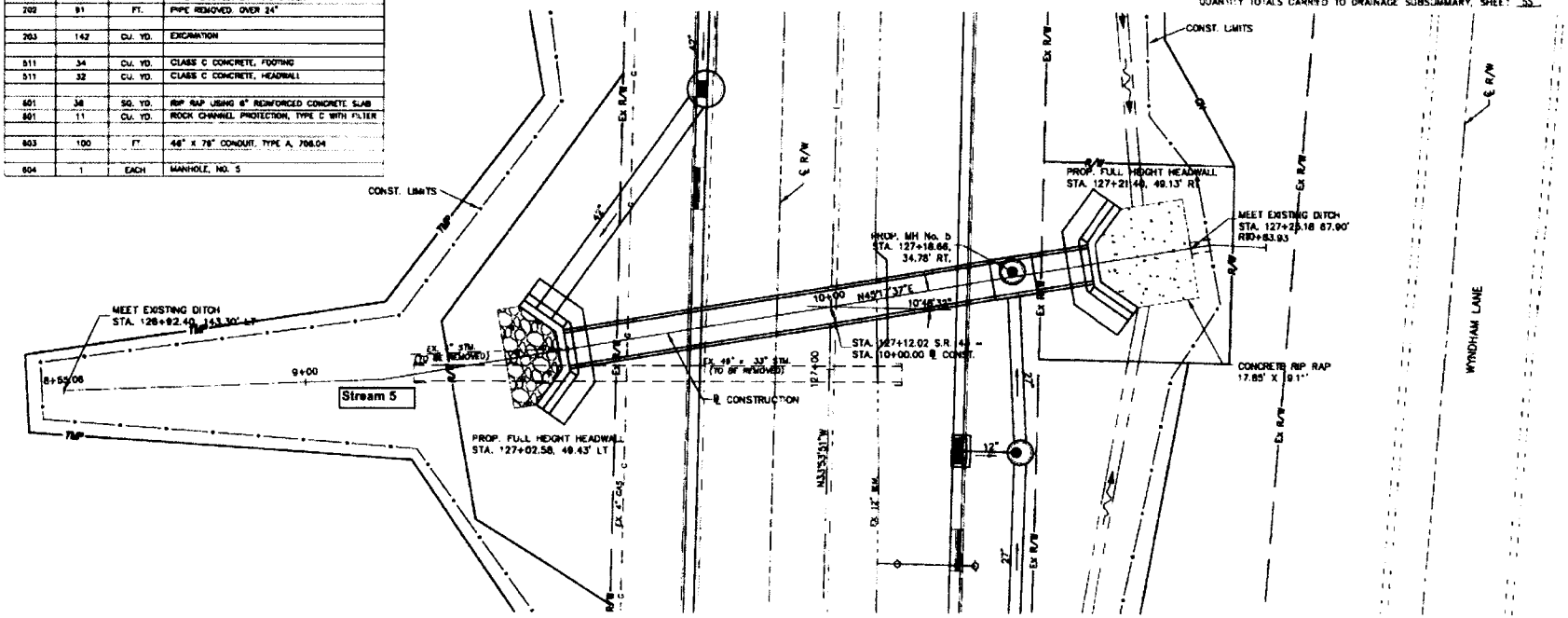
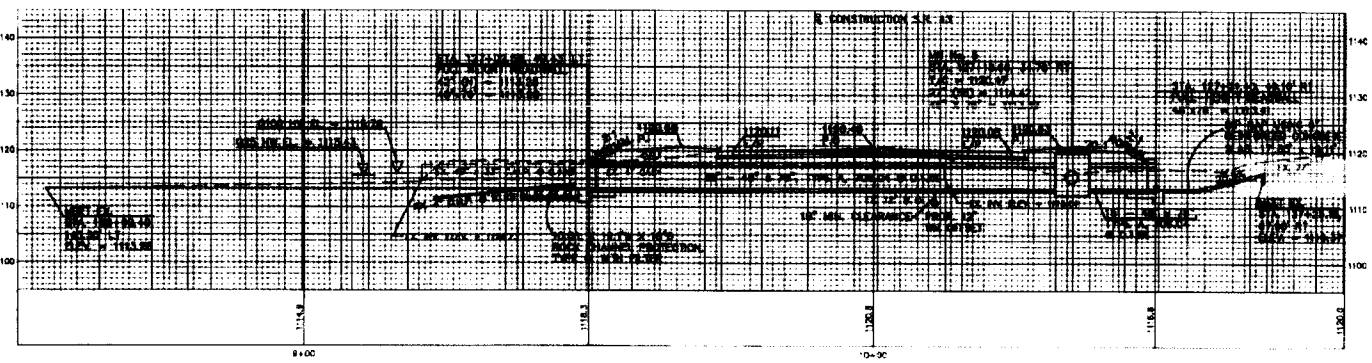
ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	39	FT.	PIPE REMOVED, 24" AND UNDER
202	91	FT.	PIPE REMOVED, OVER 24"
203	142	CU. YD.	EXCAVATION
511	34	CU. YD.	CLASS C CONCRETE, FOOTING
511	32	CU. YD.	CLASS C CONCRETE, HEADWALL
601	38	SQ. YD.	RIP RAP USING 6" REINFORCED CONCRETE SLAB
601	11	CU. YD.	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER
603	100	FT.	48" X 78" CONDUIT, TYPE A, 706.04
604	1	EACH	MANHOLE, NO. 5

NOTES:
FOR CULVERT CROSS SECTIONS SEE SHEET 24B.
FOR DRAINAGE PLAN AND PROFILE S.R. 43, SEE SHEET 22A.
QUANTITY TOTALS CARRIED TO DRAINAGE SUBSUMMARY, SHEET 55





EXISTING STRUCTURE
TYPE: CORRUGATED METAL PIPE
SIZE: 49" x 33"
ROADWAY SHOULDER: 30.00' SHOULDER TO
ALIGNMENT: TANGENT
APPROACH SLAB: NONE
SUPERELEVATION: NONE
WEARING SURFACE: ASPHALT
CONCRETE
DATE CONSTRUCTED: -
STRUCTURE FILE NO.: -
SKEW: 88°42'07"
CONDITION: GOOD

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 128.33 Acres
25 YEAR FLOW	= 37.01 cfs
100 YEAR FLOW	= 49.83 cfs
25 YEAR HW	= 1115.43 feet
100 YEAR HW	= 1115.78 feet
25 YEAR VELOCITY	= 5.81 ft/s
100 YEAR VELOCITY	= 6.34 ft/s

CULVERT DETAIL
STA. 127+12.02

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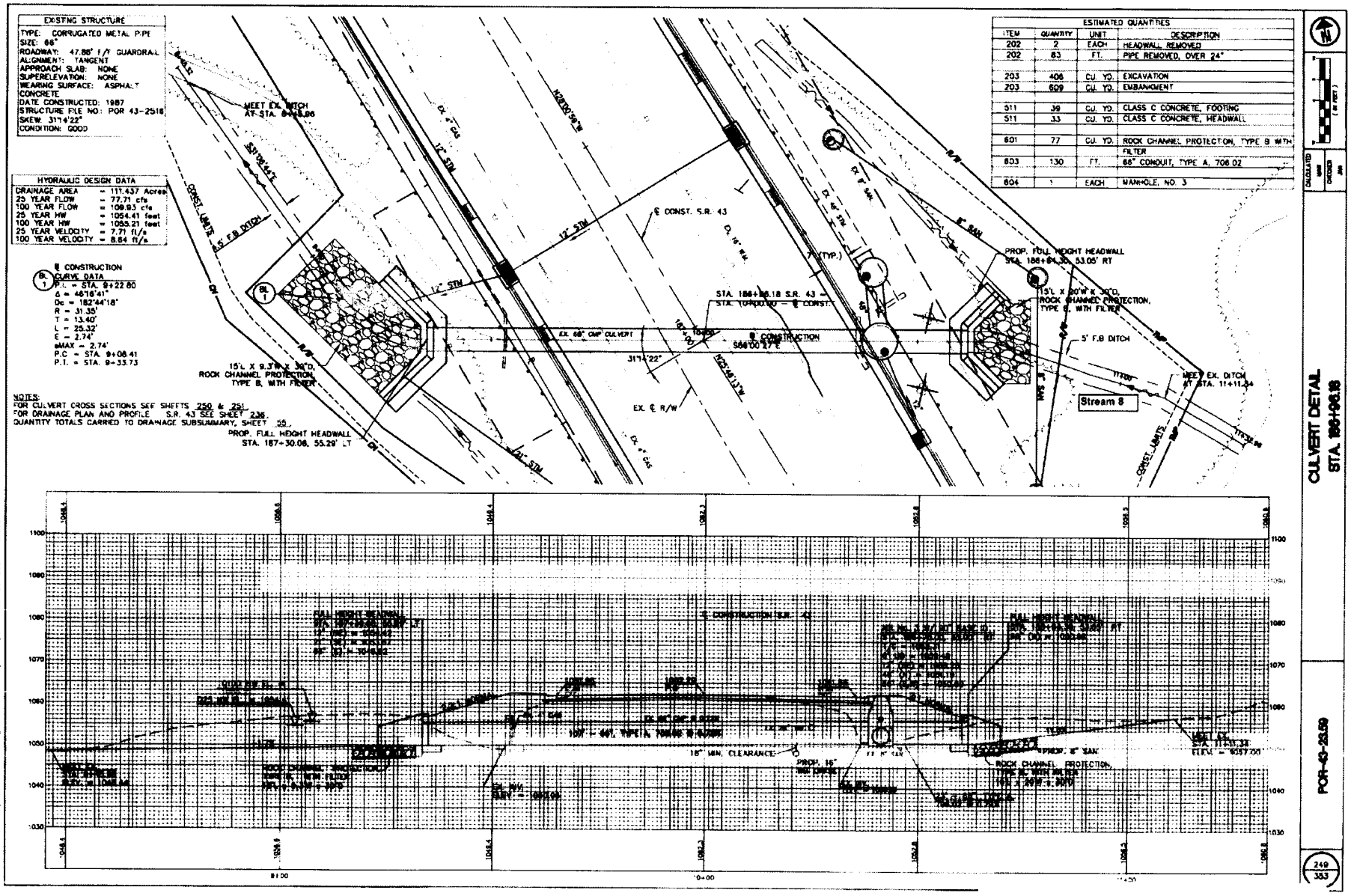

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