

UPPER BLACKSTONE WATER POLLUTION ABATEMENT DISTRICT

WASTEWATER TREATMENT FACILITY IMPROVEMENTS PHASE II

CONTRACT NO. UB 3 - 0 - 17512 - 0023

PROJECT NO. CWSRF - 2880

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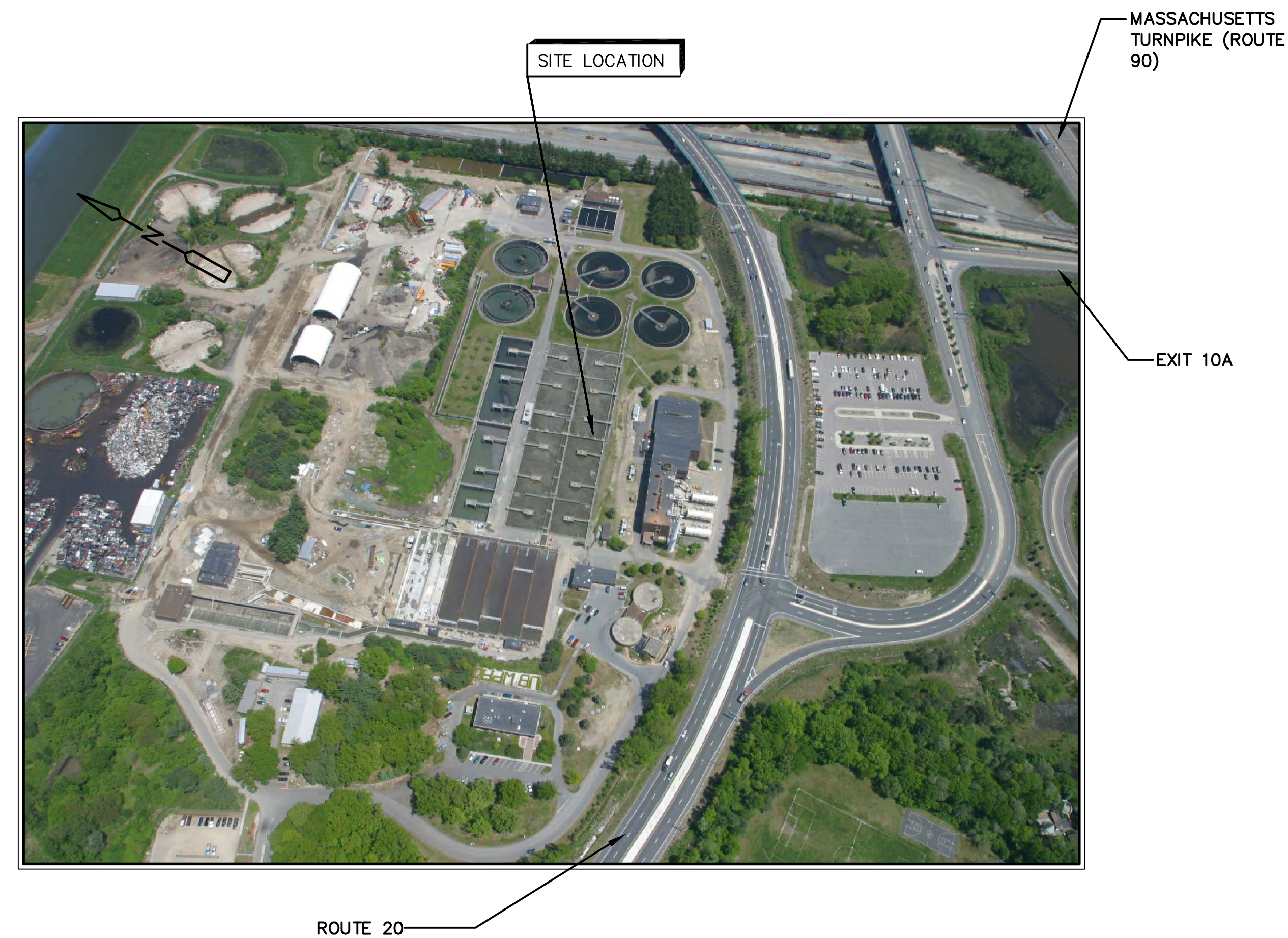
THOMAS K. WALSH, P.E.

PLANT MANAGER

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LOCATION PLAN

APPROXIMATE SCALE: 1"=250'

RECORD DRAWING
NOVEMBER 2009

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CDM Camp Dresser & McKee Inc.
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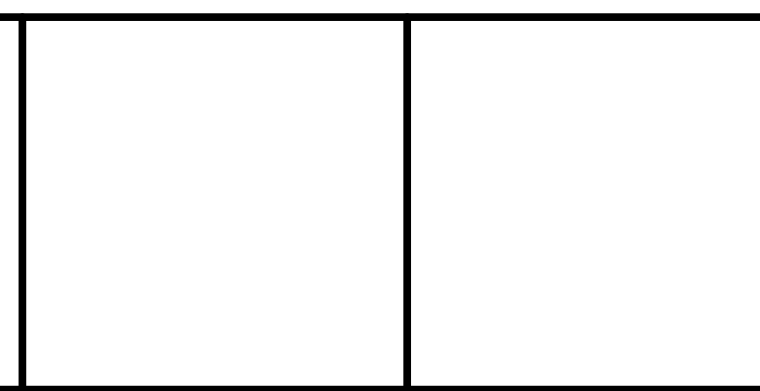
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CDM Camp Dresser & McKee Inc.
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UPPER BLACKSTONE
 WATER POLLUTION ABATEMENT DISTRICT
 CONTRACT No. UB 3 - 0 - 17512 - 0023

**WASTEWATER TREATMENT FACILITY
 IMPROVEMENTS - PHASE II**

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PROJECT NO.
1289\45571

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RECORD DRAWING

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APPROVED BY: <u> </u>
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WATER POLLUTION ABATEMENT DISTRICT
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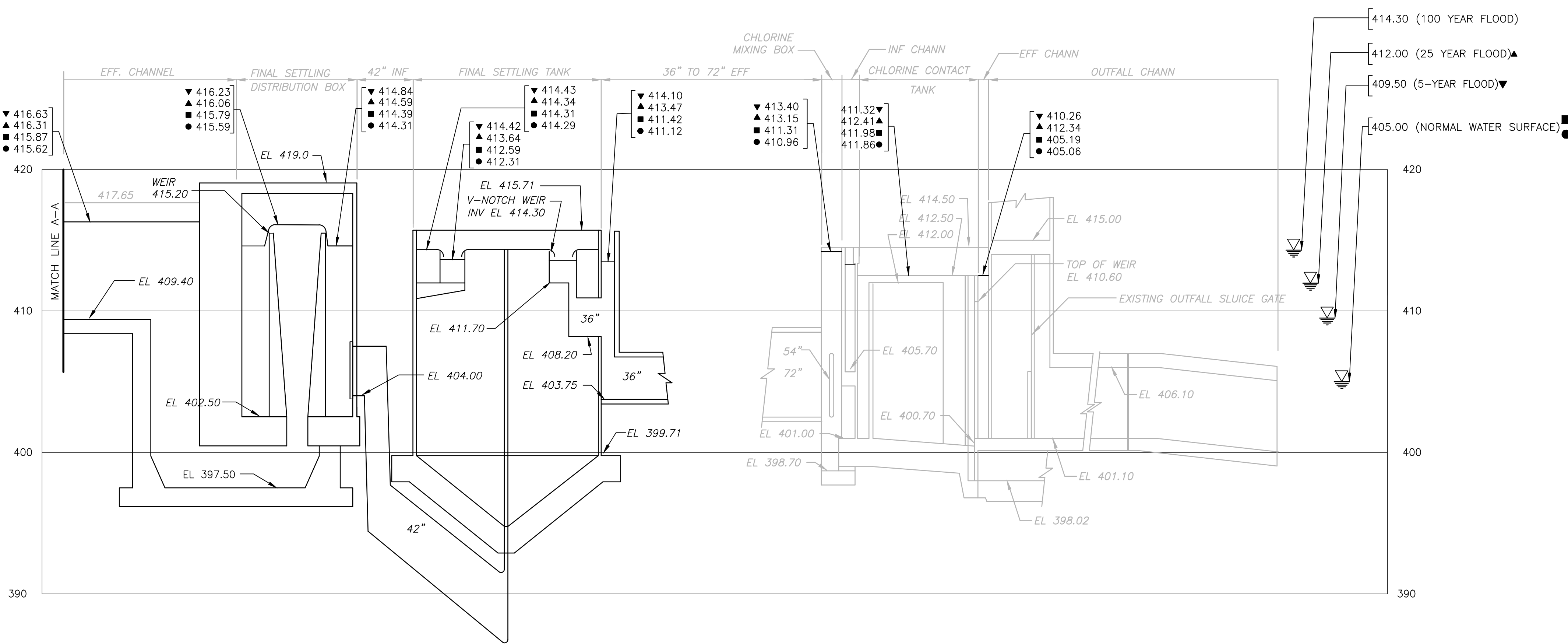
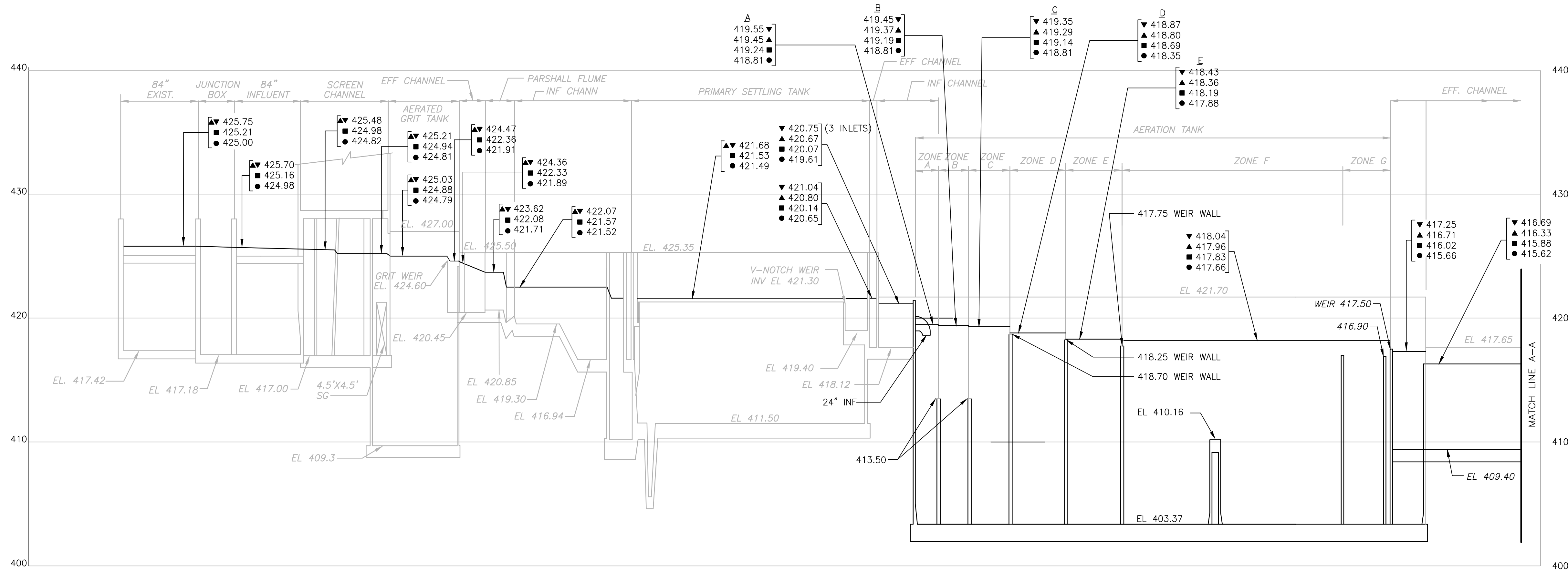
**WASTEWATER TREATMENT FACILITY
IMPROVEMENTS - PHASE II**

INDEX OF DRAWINGS II

PROJECT NO.
1289\45571

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GD-2



NOTES:
HYDRAULIC GRADE LINE SHOWN FOR PEAK HOURLY PLANT FLOW (MAXIMUM DAY 80 MGD TO ADVANCED TREATMENT) WITH RIVER AT 412.0'. (25-YR FLOOD) ▲

THE VERTICAL DATUM IS REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29)

- COMPLETION OF PHASE II**
- ▲ ESTIMATED WATER SURFACE ELEVATION AT 160 MGD PEAK HOURLY PLANT FLOW (120 MGD TO ADVANCED TREATMENT INCLUDES SIDESTREAMS) AND MODERATELY HIGH RIVER (5-YEAR FLOOD)
57 MGD RAS
150 MGD INTERNAL RECYCLE
OPERATING UNITS:
4 SCREENS,
4 AERATED GRIT TANKS,
7 PRIMARY SETTLING TANKS,
4 AERATION TANKS,
8 FINAL SETTLING TANKS, AND
2 CHLORINE CONTACT TANKS.
 - ▲ ESTIMATED WATER SURFACE ELEVATION AT 160 MGD PEAK HOURLY PLANT FLOW, (MAXIMUM DAY 80 MGD TO ADVANCED TREATMENT INCLUDES SIDESTREAMS) AND PEAK, 25-YEAR RIVER FLOOD,
57 MGD RAS
150 MGD INTERNAL RECYCLE.
OPERATING UNITS:
4 SCREENS,
4 AERATED GRIT TANKS,
7 PRIMARY SETTLING TANKS,
4 AERATION TANKS,
8 FINAL SETTLING TANKS, AND
2 CHLORINE CONTACT TANKS.
 - ESTIMATED WATER SURFACE ELEVATION AT AVERAGE DAILY FLOW
45 MGD PLANT FLOW (46.6 MGD TO ADVANCED TREATMENT INCLUDES SIDESTREAMS)
31 MGD RAS
150 MGD INTERNAL RECYCLE.
OPERATING UNITS:
2 SCREENS,
2 AERATED GRIT TANKS,
6 PRIMARY SETTLING TANKS,
4 AERATION TANKS,
8 FINAL SETTLING TANKS, AND
2 CHLORINE CONTACT TANKS.
 - ESTIMATED WATER SURFACE ELEVATION AT MINIMUM DAILY FLOW
24 MGD PLANT FLOW (25.6 MGD TO ADVANCED TREATMENT INCLUDES SIDESTREAMS)
16.6 MGD RAS
0 MGD INTERNAL RECYCLE
OPERATING UNITS:
2 SCREENS,
2 AERATED GRIT TANKS,
5 PRIMARY SETTLING TANKS,
4 AERATION TANKS,
8 FINAL SETTLING TANKS, AND
2 CHLORINE CONTACT TANKS.

SCALE
1"=5'0" VERTICAL

RECORD DRAWING

File: MHYPRO01.DWG Plotted on: 18-May-12

REV. NO.	DATE	DRWN	CHKD	REMARKS
11/09				

CADD FILE NO. MHYPRO01.DWG
DESIGNED BY: R. LARAMIE
DRAWN BY: V. BITTO
SHEET CHK'D BY: R. LARAMIE
SCALE: NONE
APPROVED BY: W.D. GREEN
DATE: NOVEMBER 2008

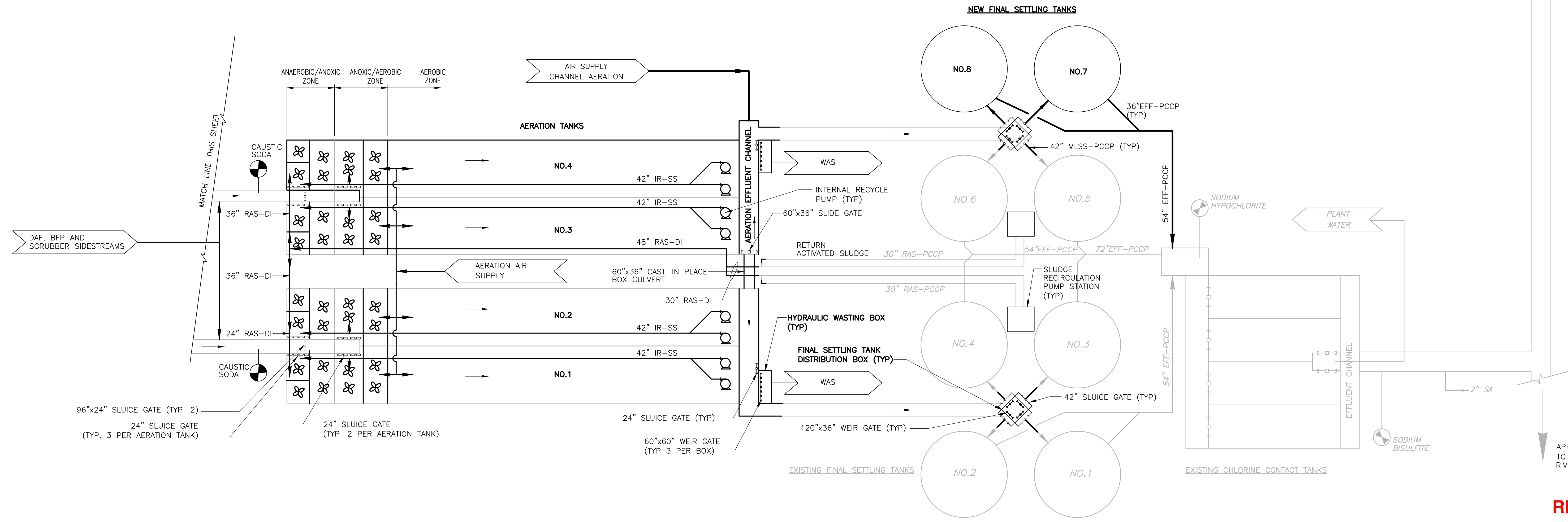
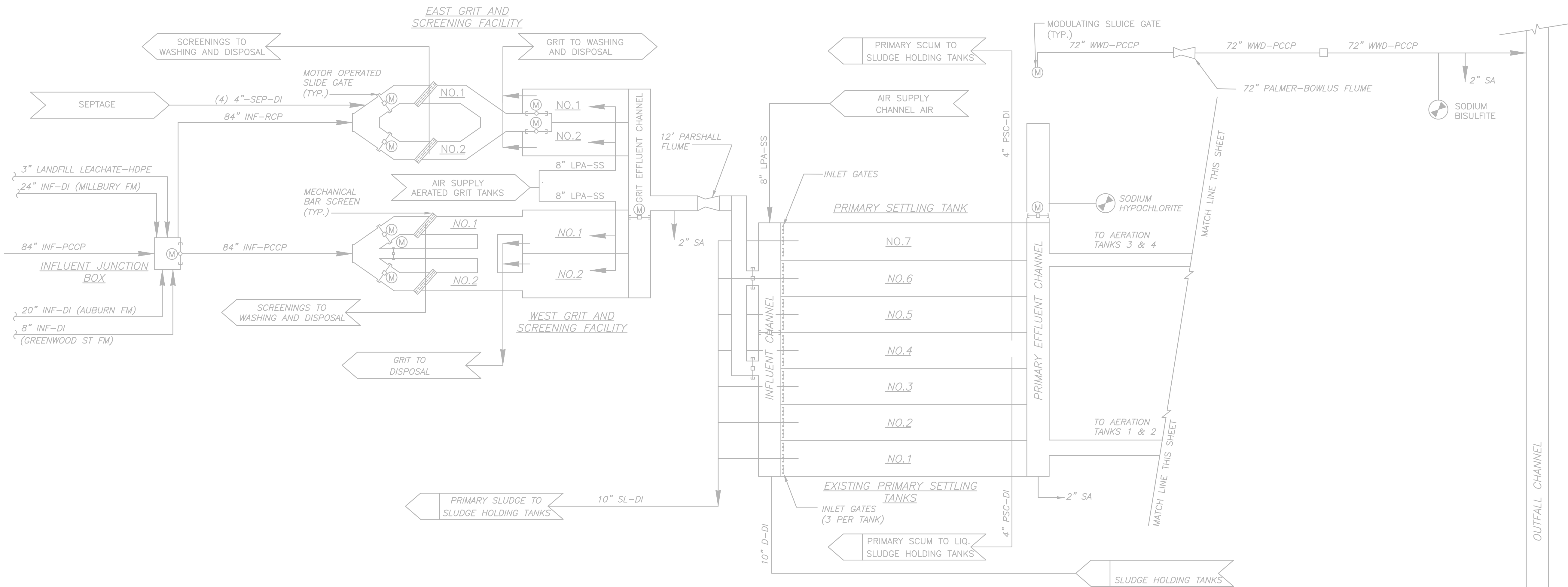
CDM Camp Dresser & McKee Inc.
consulting
engineering
construction
operations

**UPPER BLACKSTONE
WATER POLLUTION ABATEMENT DISTRICT
CONTRACT No. UB 3 - 0 - 17512 - 0023**

**WASTEWATER TREATMENT FACILITY
IMPROVEMENTS - PHASE II**

**HYDRAULIC PROFILE
AT COMPLETION OF PHASE II**

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ACCESSION NO. 1289-68616



NOTE:
 1. REFER TO SECTION 00300 AND SECTION 01025 FOR DESCRIPTION OF ADD ALTERNATE NO. 2 SCOPE OF WORK.

LEGEND:
 [Symbol] NEW
 [Symbol] EXISTING
 APPROX. 2000 FT. TO BLACKSTONE RIVER

RECORD DRAWING

File: MPRFD001.DWG Plotted on: 18-May-12

11/09				REVISED FOR RECORD
CADD FILE NO. MPRFD001.DWG		DESIGNED BY: M. NEVILLE		
DRAWN BY: V. BITTO		SHEET CHK'D BY: W. D. GREEN		
SCALE: NONE		APPROVED BY:		
DATE: NOVEMBER 2006		REMARKS		

CDM Camp Dresser & McKee Inc.
 consulting engineering construction operations

UPPER BLACKSTONE
 WATER POLLUTION ABATEMENT DISTRICT
 CONTRACT No. UB 3 - 0 - 17512 - 0023
**WASTEWATER TREATMENT FACILITY
 IMPROVEMENTS - PHASE II**

**LIQUID PROCESS FLOW DIAGRAM
 PHASE II**

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 ACROSSON NO. 1289-69617