

LA-MSID

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

Aquifer Benefit and Storage for Orange River Basin
LEHIGH ACRES, FLORIDA

OWNER
LEHIGH ACRES
MUNICIPAL SERVICES
IMPROVEMENT DISTRICT

601 East County Lane
Lehigh Acres, FL 33936
Phone: (239) 368-0044
Fax: (239) 368-5412
Email: mcook@la-msid.com

BOARD OF COMMISSIONERS:

J. Nathan Stout
Kenneth K. Thompson
David Deetscreek
Michael J. Welch
Michael Bonacolta

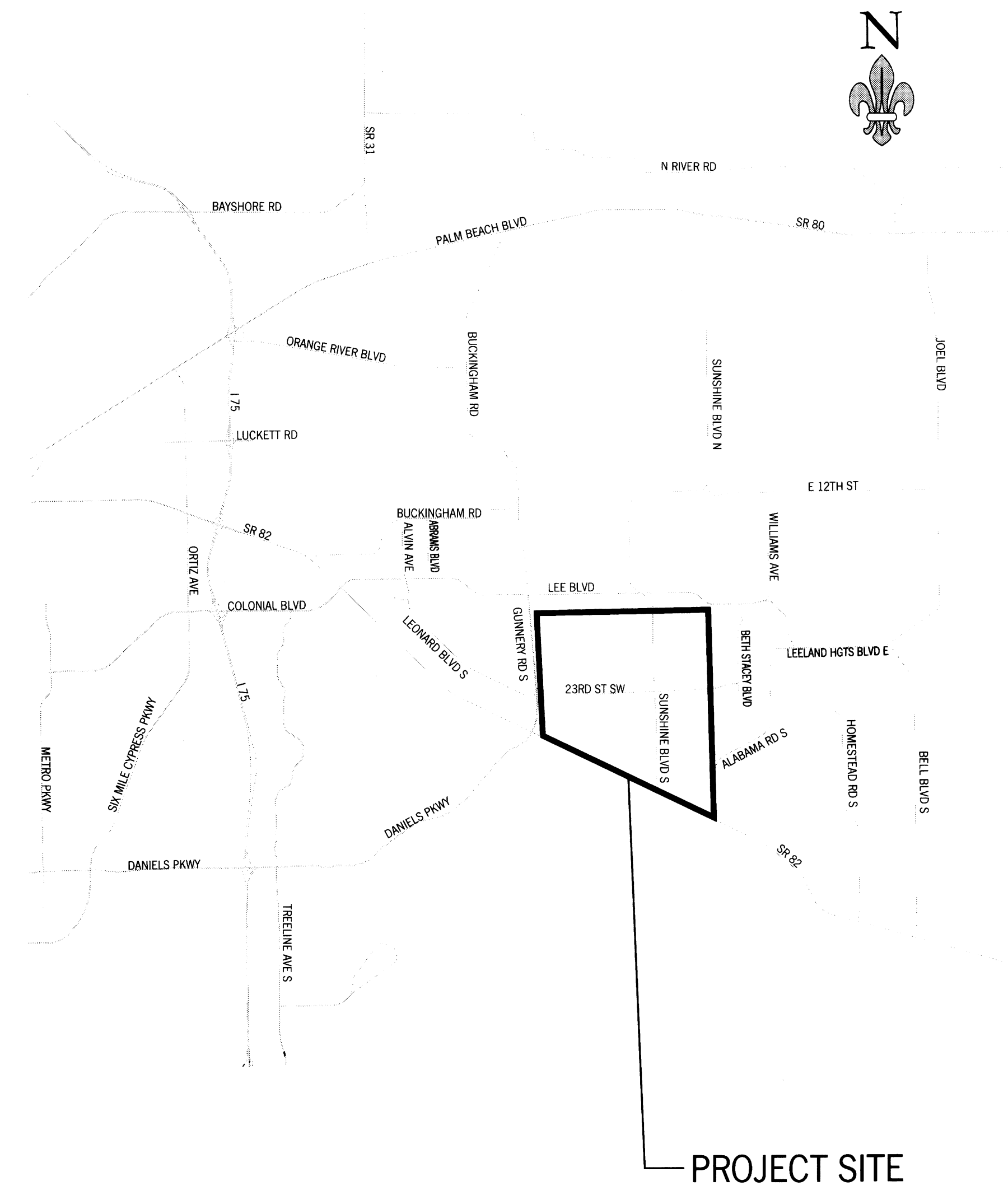
LA-MSID STAFF:

David E. Lindsay - District Manager
Michael S. Cook - Assistant District Manager
Kathryn O'Brien - Comptroller

UTILITY SERVICE PROVIDERS:	
POTABLE WATER & SANITARY SEWER	GARBAGE COLLECTION:
FLORIDA GOVERNMENTAL UTILITIES AUTHORITY 1229 HOMESTEAD ROAD NORTH LEHIGH ACRES, FLORIDA 33936 PHONE (239) 368-0538 1-866-302-1615	WASTE MANAGEMENT 11990 STATE ROAD 82 FT. MYERS, FL. 33913 (239) 334-4115
TELEPHONE:	UTILITY LOCATING SERVICE
CENTUARY LINK 1500 DANIELS PKWY, #300 FT. MYERS, FL. 33912 (239) 590-0440	SUNSHINE STATE ONE CALL CENTER PHONE (800) 432-4770 (MINIMUM 48 HOURS NOTICE REQUIRED)
ELECTRIC:	FIRE CONTROL DISTRICT:
LEE COUNTY ELECTRIC COOP. 4980 BAYLINE DR NORTH FT. MYERS, FL 33917 (239) 995-2121	LEHIGH ACRES FIRE RESCUE 10 HOMESTEAD RD S LEHIGH ACRES, FL 33936 (239) 369-1758

CALL BEFORE YOU DIG:
SUNSHINE STATE ONE CALL CENTER
PHONE: (800) 432-4770
(MINIMUM 48 HOURS NOTICE REQUIRED)

LOCATION MAP



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COVER
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DATE: SEPT 2015
REVISIONS
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)
SW Basin Structures
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT
T 44-45S / R 26 E LEE COUNTY
FEB 9 2016 Richard H. Thompson, P.E. # 46720 R.H.T. Engineering, Inc. 310 Inman Street Lehigh Acres, FL 33936 (239) 369-8900 Engineering Certificate of Authorization # 25852

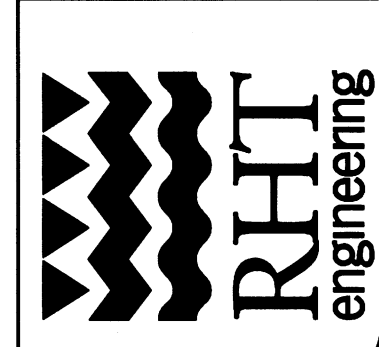
1" = 1000'



REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)
SW BASIN STRUCTURES MASTER SITE PLAN
 CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT
 T 44-45S / R 26 E
 LEE COUNTY

DATE:
 Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
 319 Inman Street
 Lehigh Acres, FL 33936
 (239) 369-8900
 Engineering Certificate of Authorization
 # 25852



N
1" = 1000'



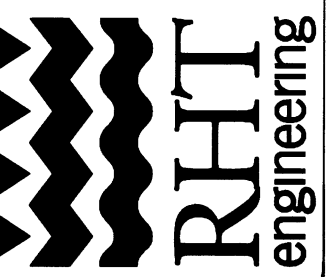
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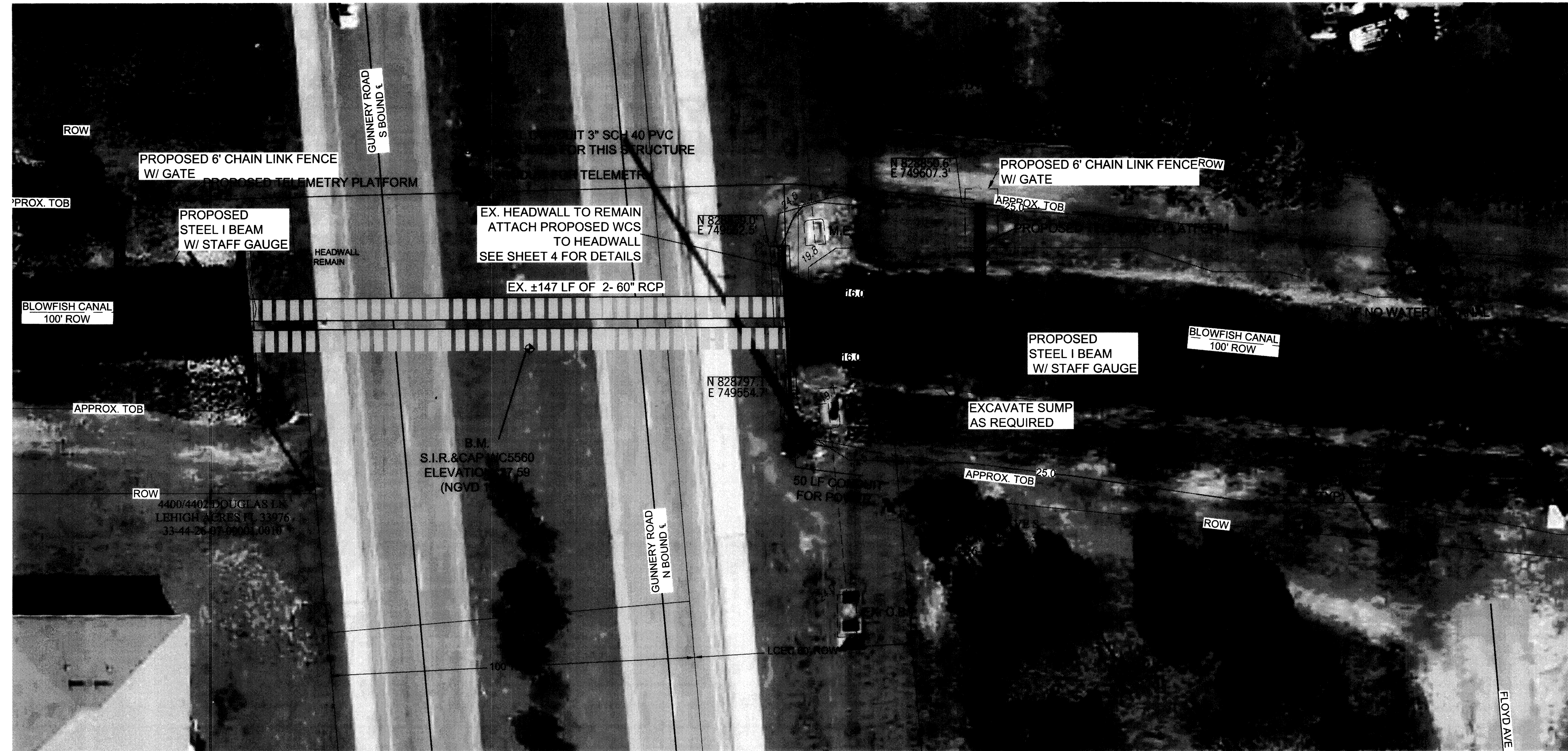
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

SW BASIN STRUCTURES MASTER SITE AERIAL
T 44.45S / R 26 E
LEE COUNTY
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

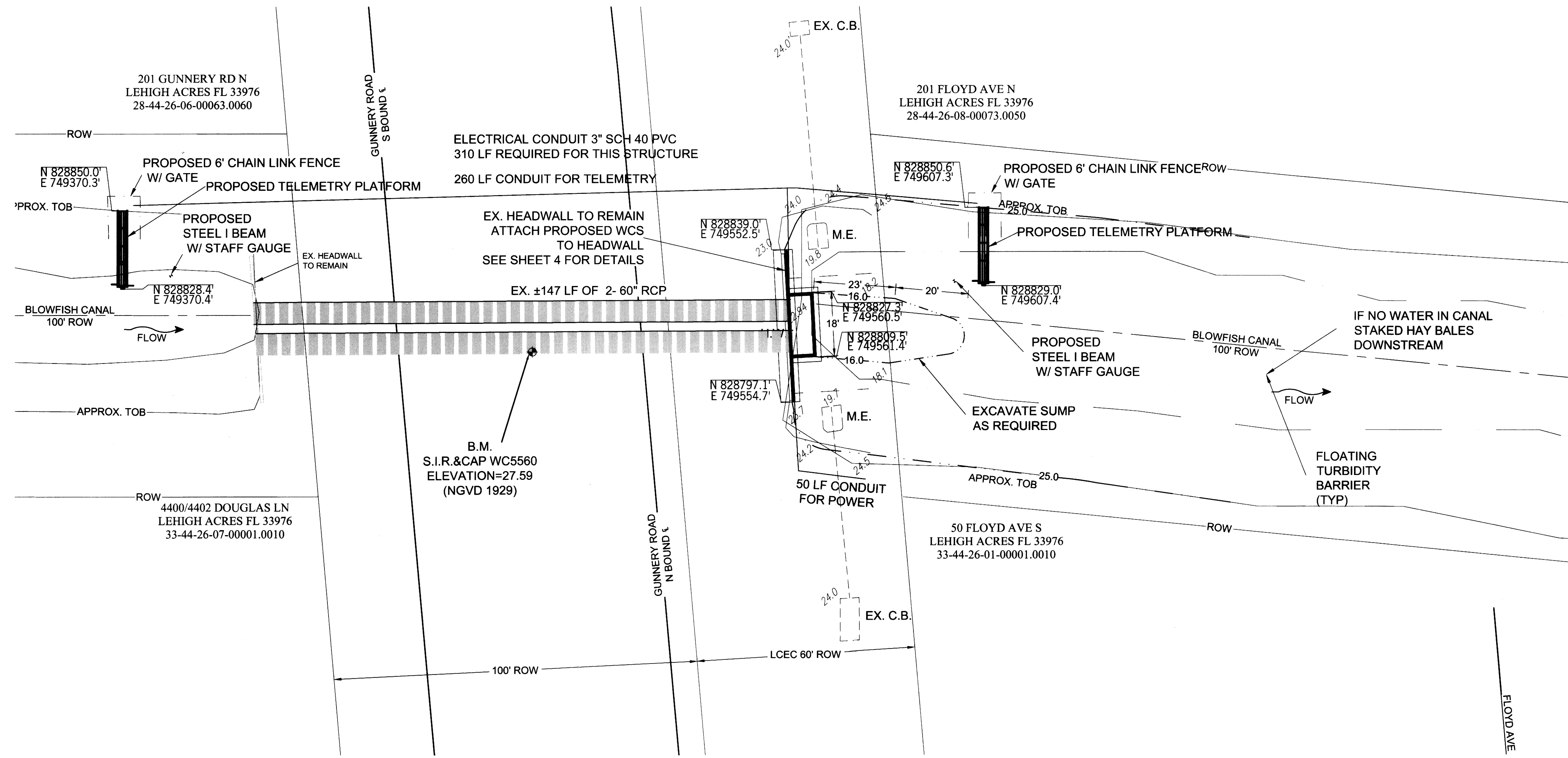
DATE: Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
319 Innman Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization # 23852



1" = 20'



1" = 20'



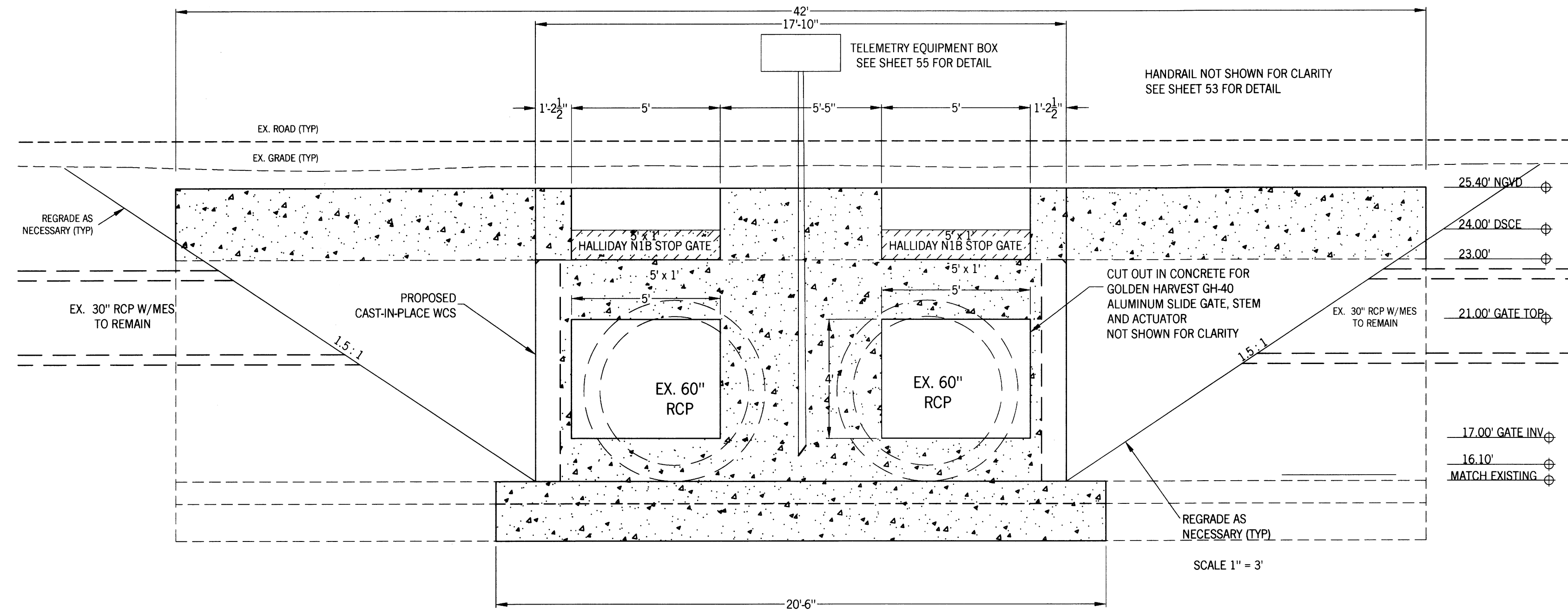
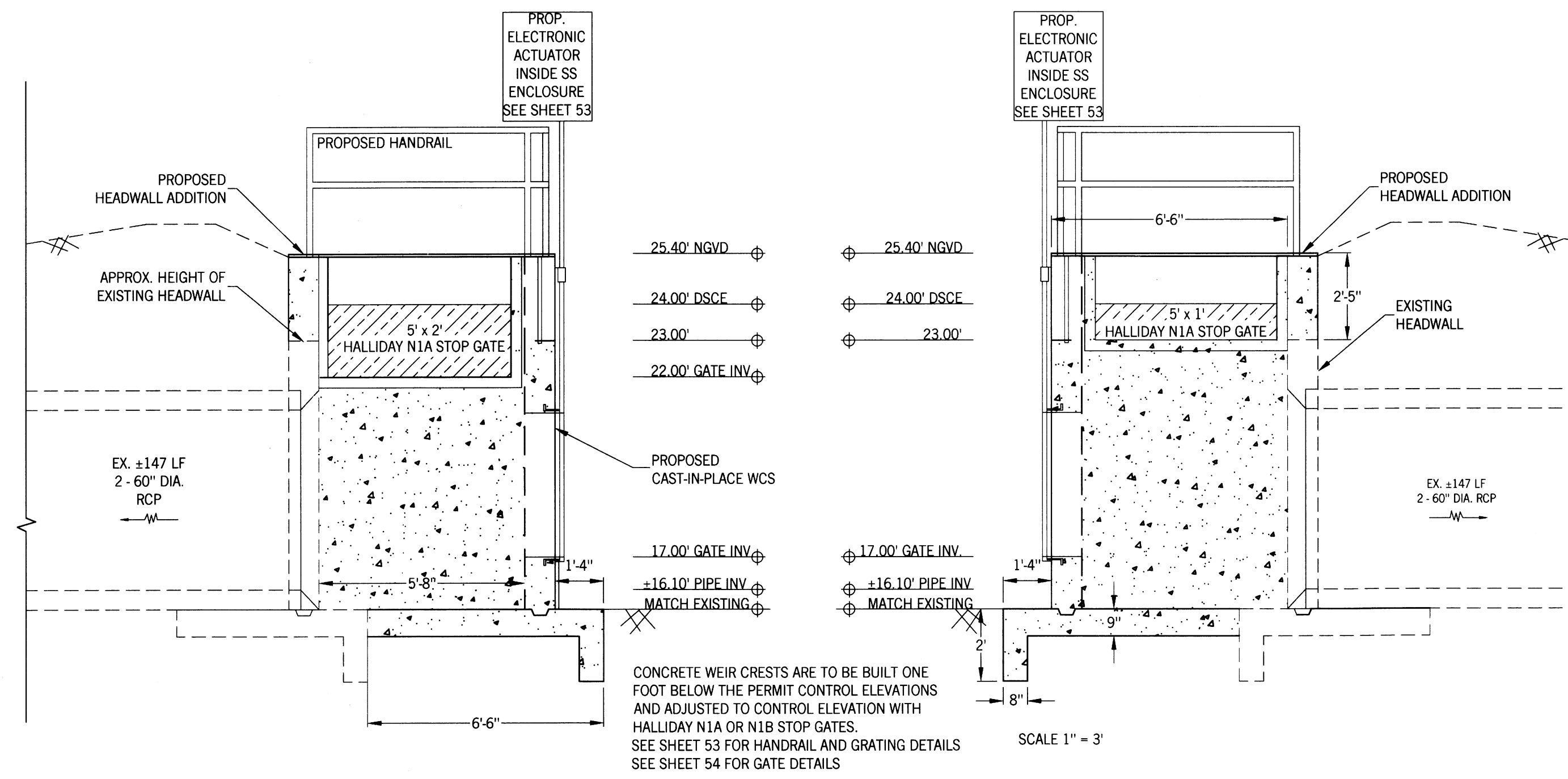
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 DATE: SEPT 2015

NO.	REVISIONS

SOUTHWEST STORMWATER RECLAMATION PROJECT
STRUCTURE 1 AERIAL AND PLAN VIEW
 CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT
 BLOWFISH CANAL

DATE:
 Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
 319 Innan Street
 Lehigh Acres, FL 33936
 (813) 369-8900
 Engineering Certificate of Authorization # 25832





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SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 1 FRONT AND SIDE VIEWS

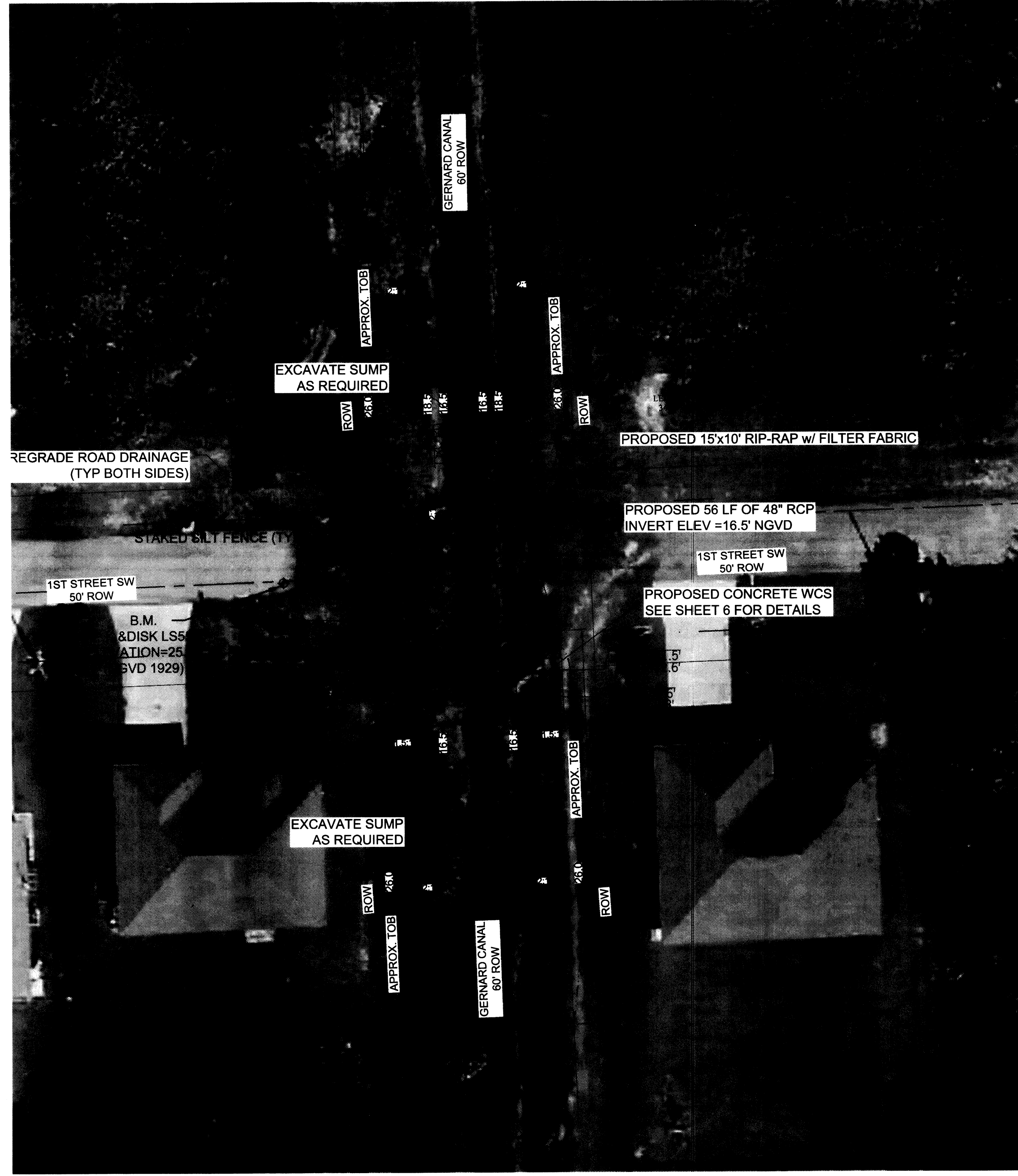
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

BLOWFISH CANAL

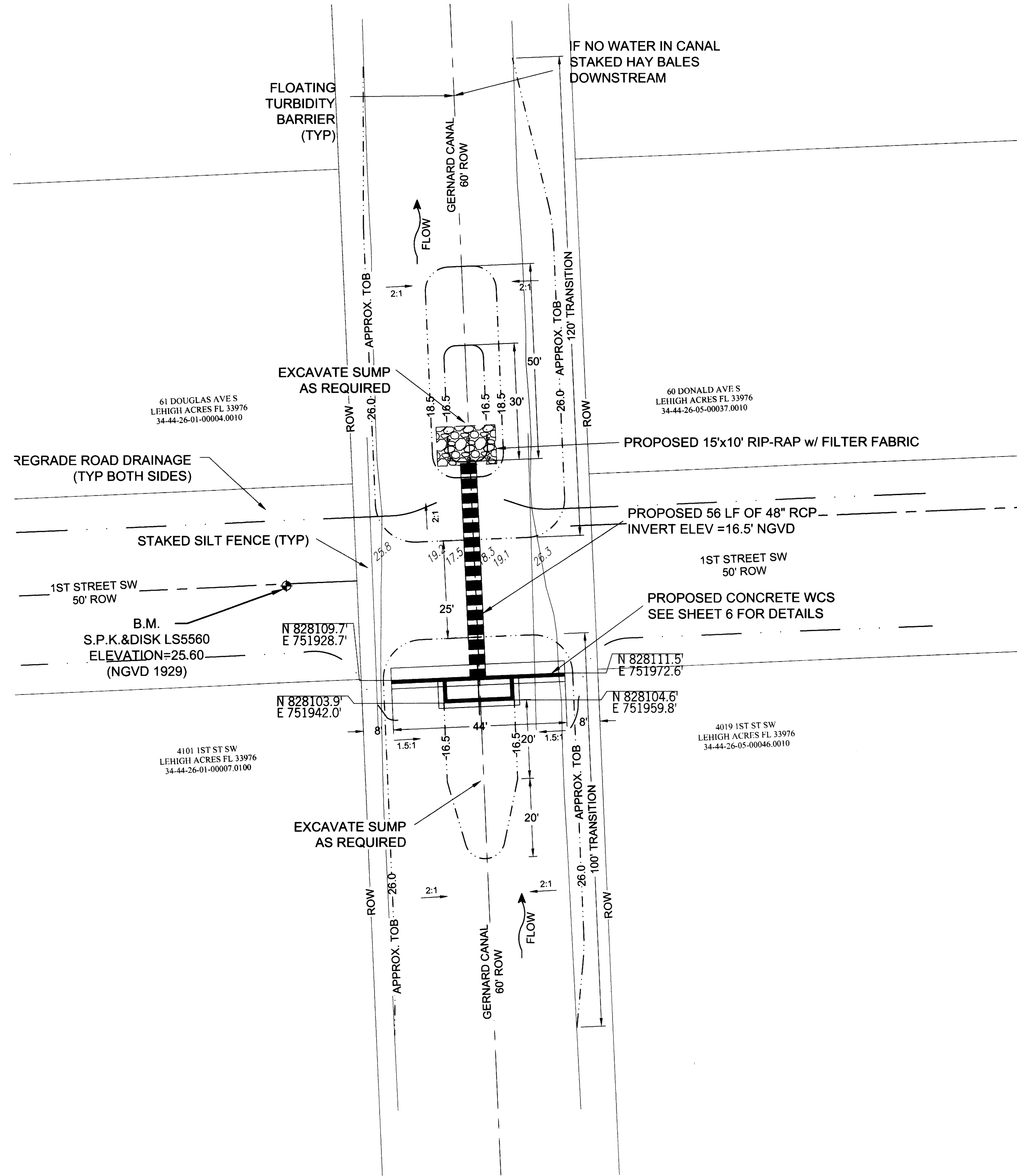
DATE: # 46720
Richard H. Thompson, P.E.
R.H.T. Engineering, Inc.
319 Inman Street
Lehigh Acres, FL 33956
(239) 569-8900
Engineering Certificate of Authorization # 25852



1" = 20'
N



1" = 20'
N



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SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

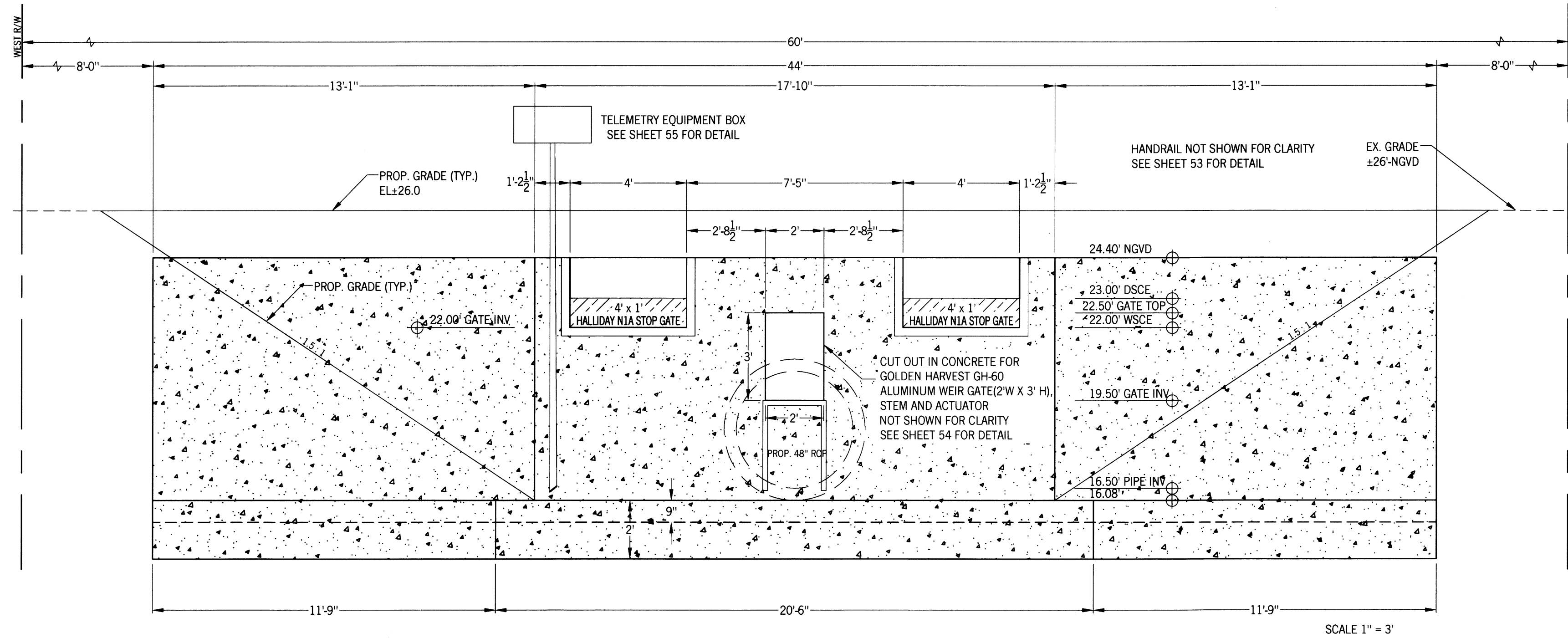
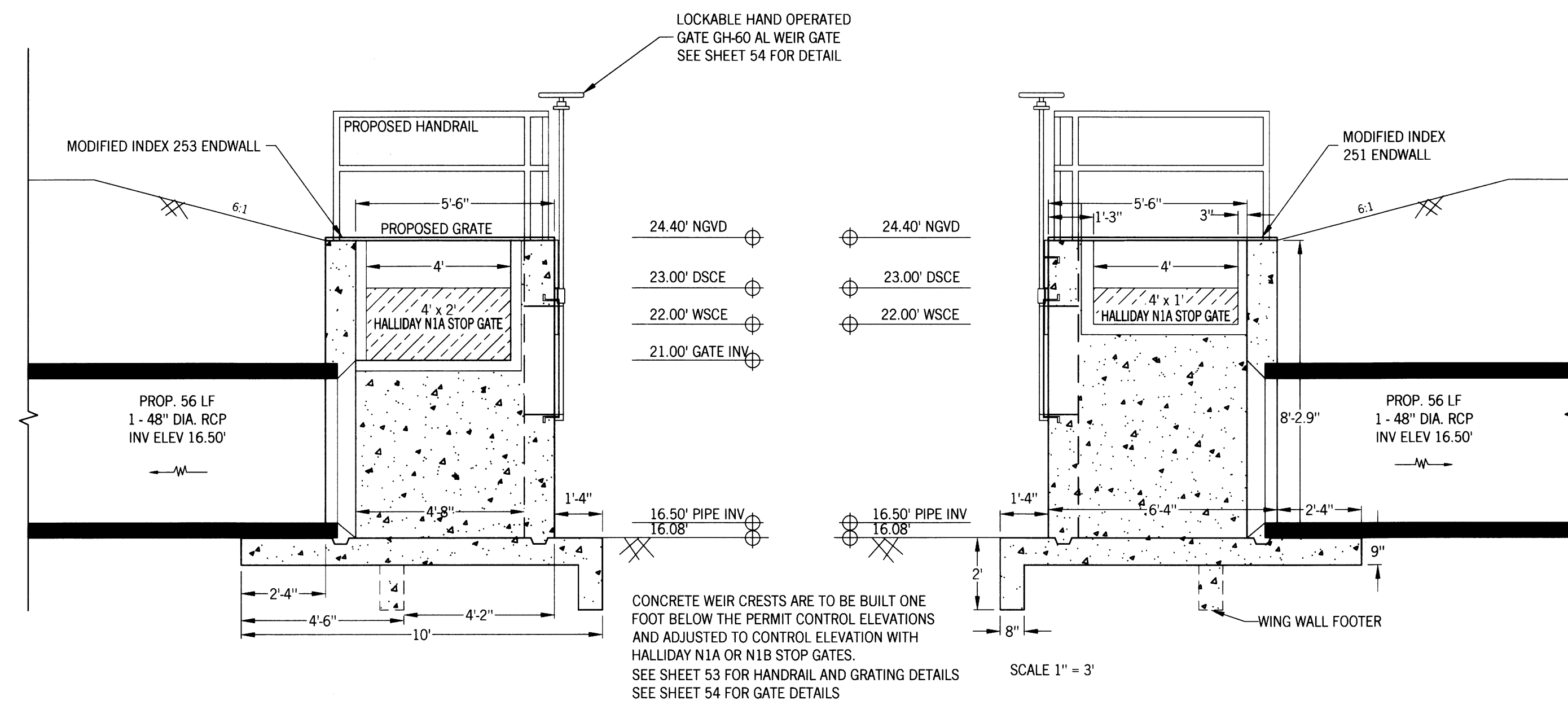
STRUCTURE 2 AERIAL AND PLAN VIEW

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

DATE:
Richard H. Thompson, P.E. # 46720

R.H.T. Engineering, Inc.
319 Juniper Street
Lehigh Acres, FL 33976
(239) 369-8900
Engineering Certificate of Authorization
28852





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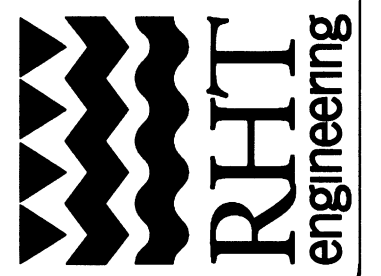
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 2 FRONT AND SIDE VIEWS

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GERRARD CANAL

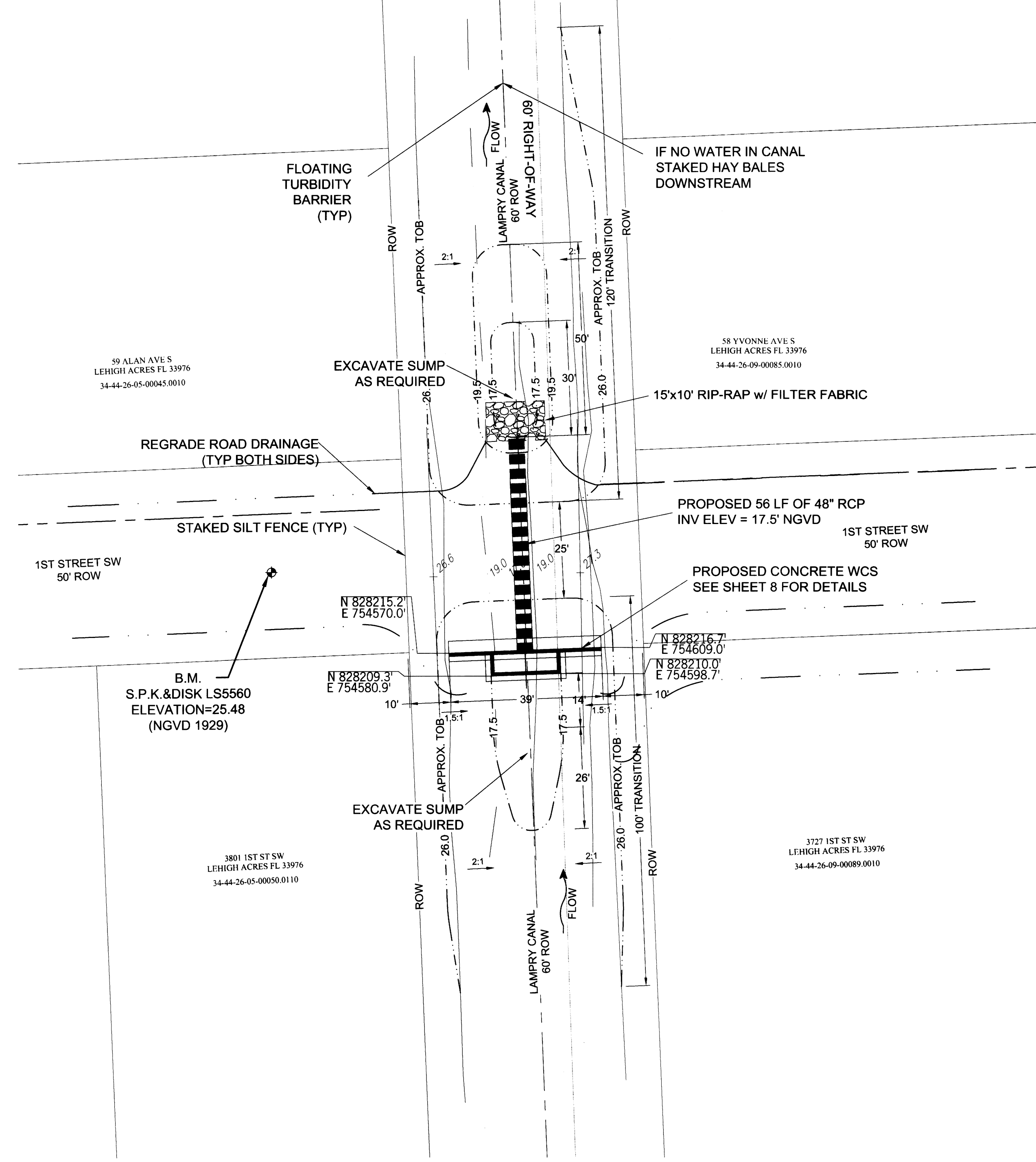
Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
 310 Innan Street
 Lehigh Acres, FL 33936
 (239) 369-8900
 Engineering Certificate of Authorization
 # 23852



1" = 20'
N



1" = 20'
N



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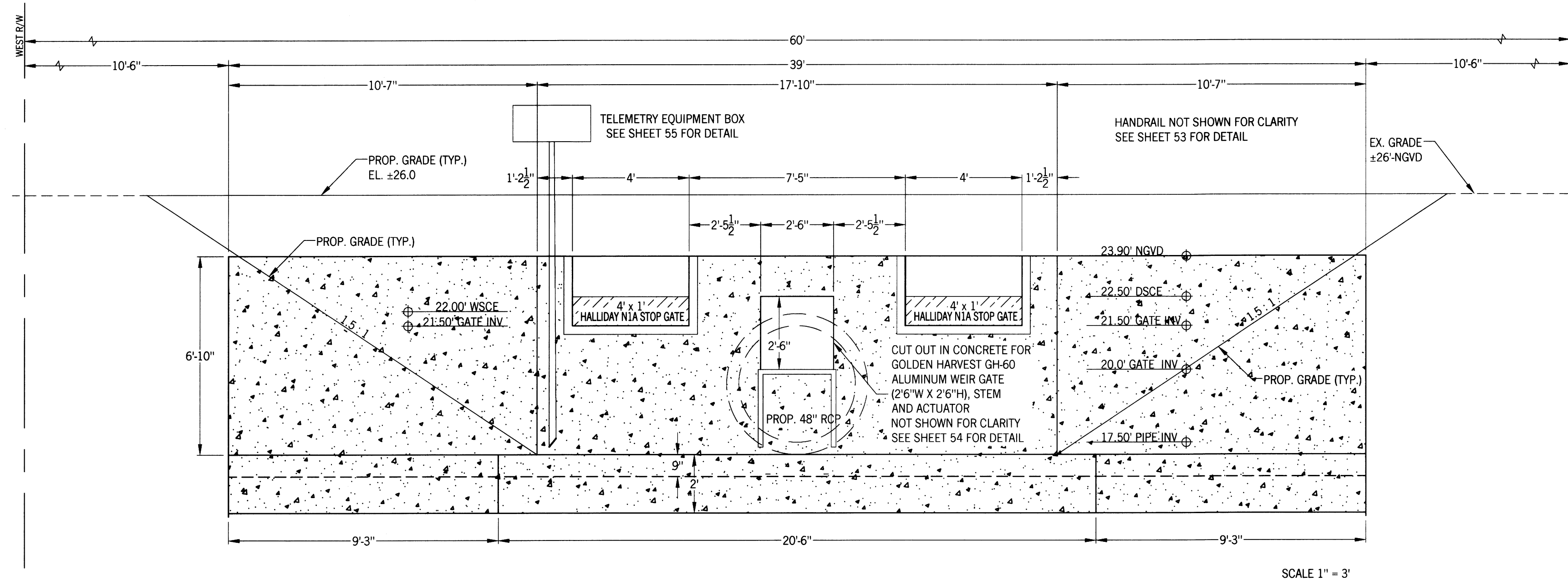
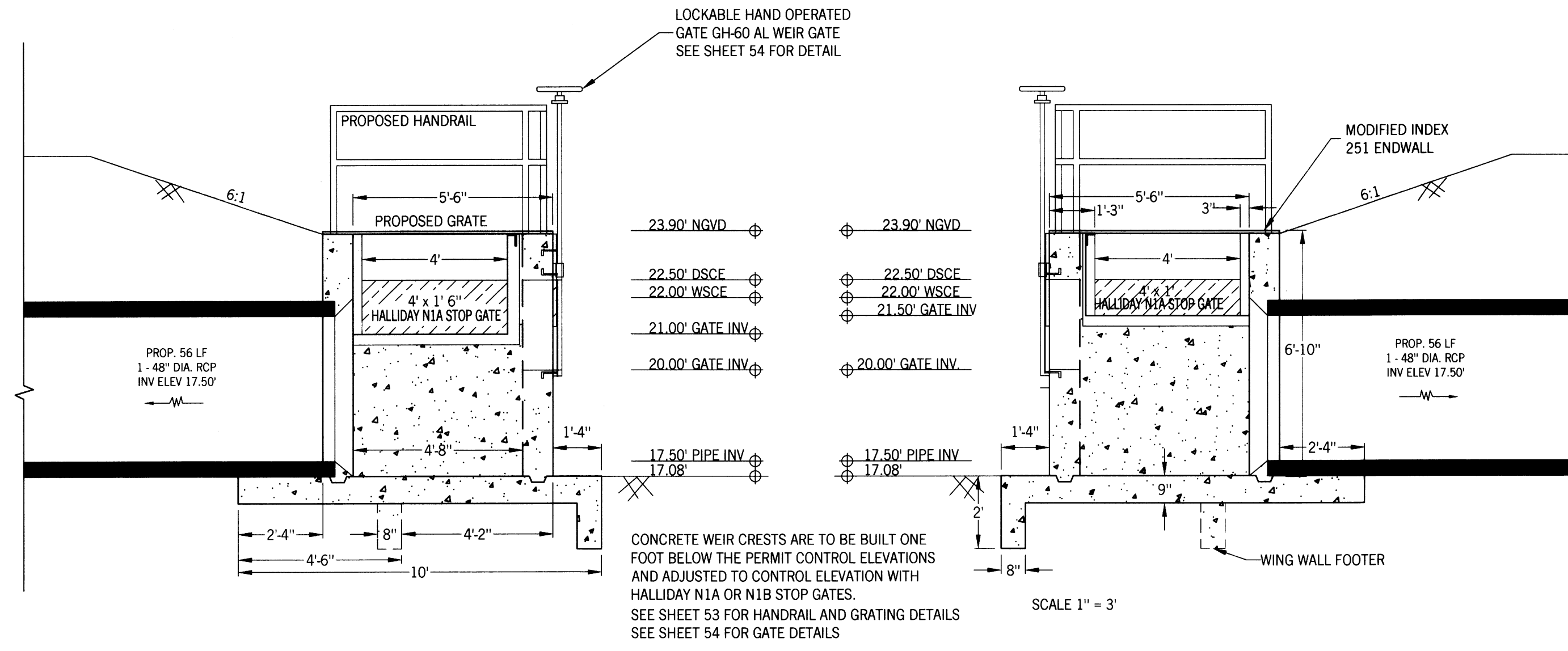
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SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)
STRUCTURE 3 AERIAL AND PLAN VIEW
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT
LAMPRY CANAL

DATE: # 46720
Richard H. Thompson, P.E.
R.H.T. Engineering, Inc.
319 Innan Street
Lehigh Acres, FL 33976
(239) 369-8900
Engineering Certificate of Authorization # 25852



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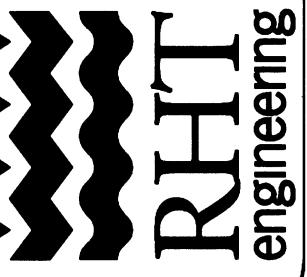
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 3 FRONT AND SIDE VIEWS

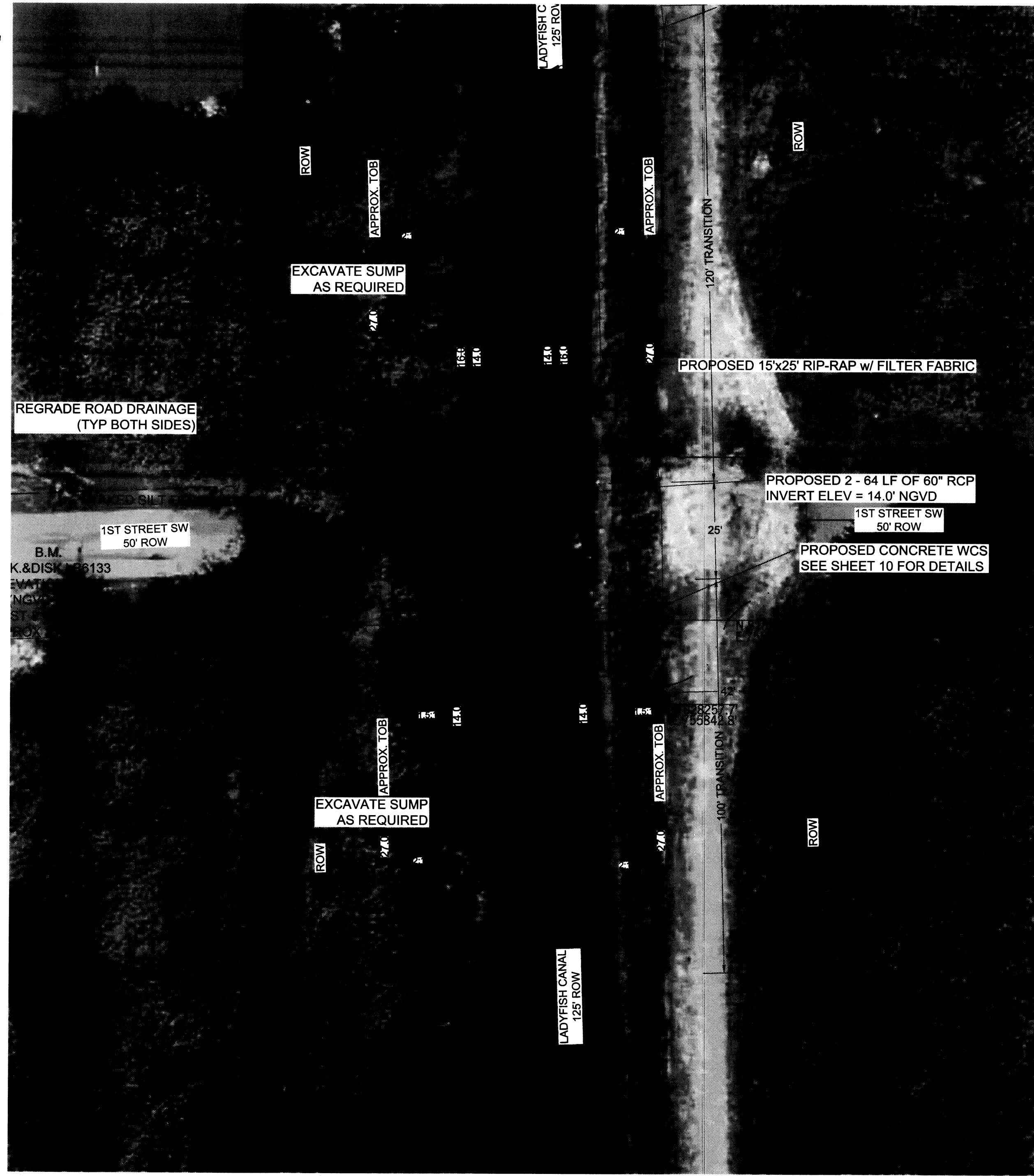
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

LAMPRY CANAL

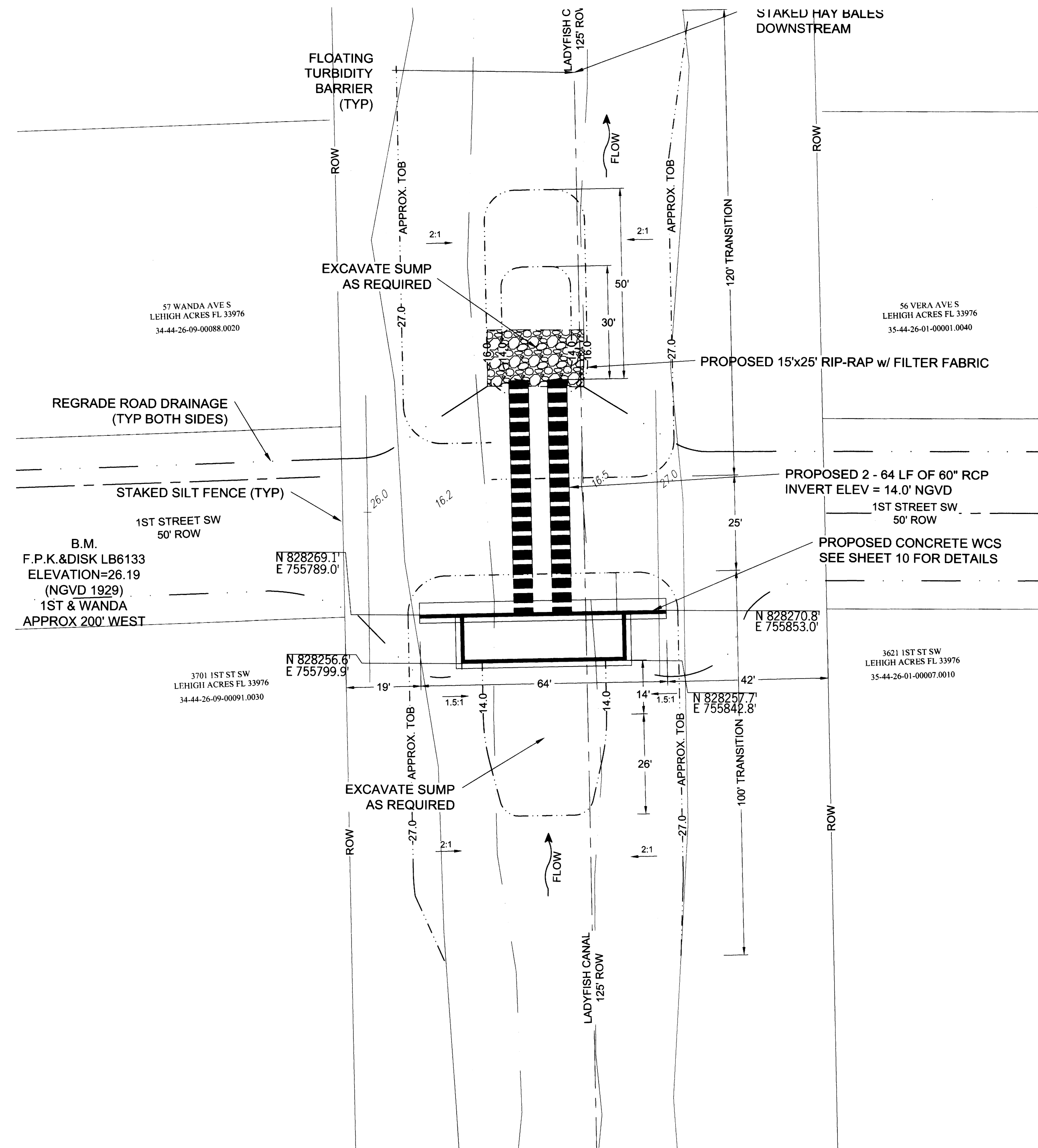
DATE: # 46720
R.H.T. Engineering, Inc.
 14317 Innan Street
 Lehigh Acres, FL 33936
 (813) 369-8900
 Engineering Certificate of Authorization # 25852



1" = 20'
N



1" = 20'
N



SHEET 9/56

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SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 4 AERIAL AND PLAN VIEW

LADYFISH CANAL

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

DATE

Richard H. Thompson, P.E. # 46720

R.H.T. Engineering, Inc.

1100 Lehigh Valley Blvd., Suite 100
Lehigh Valley, PA 18015
(610) 360-8800
Engineering Certificate of Authorization # 2382



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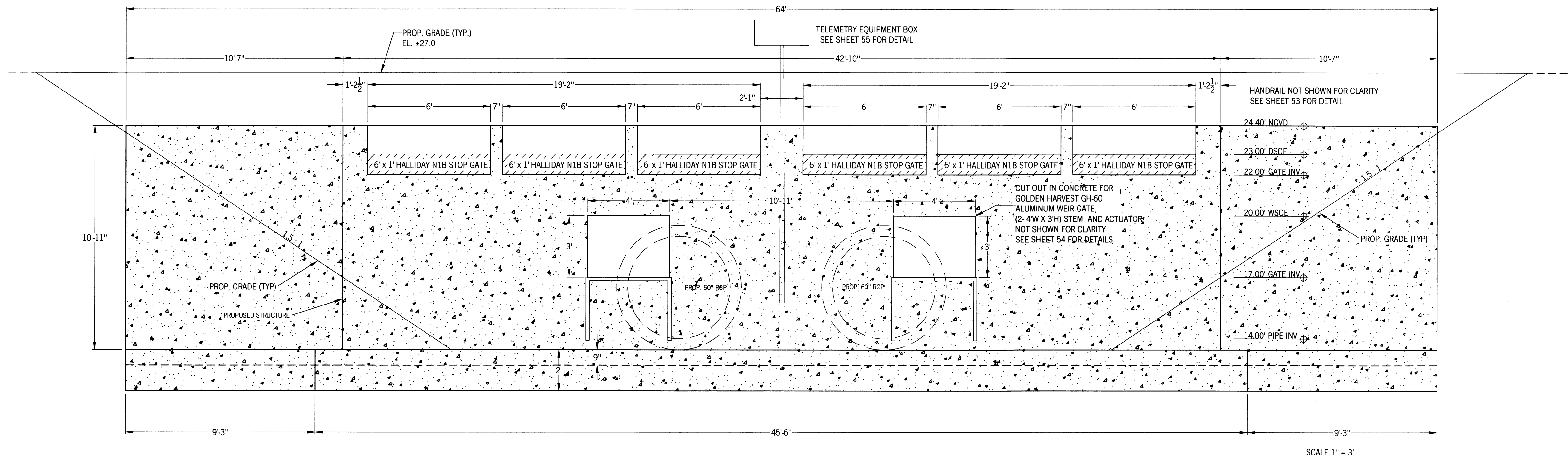
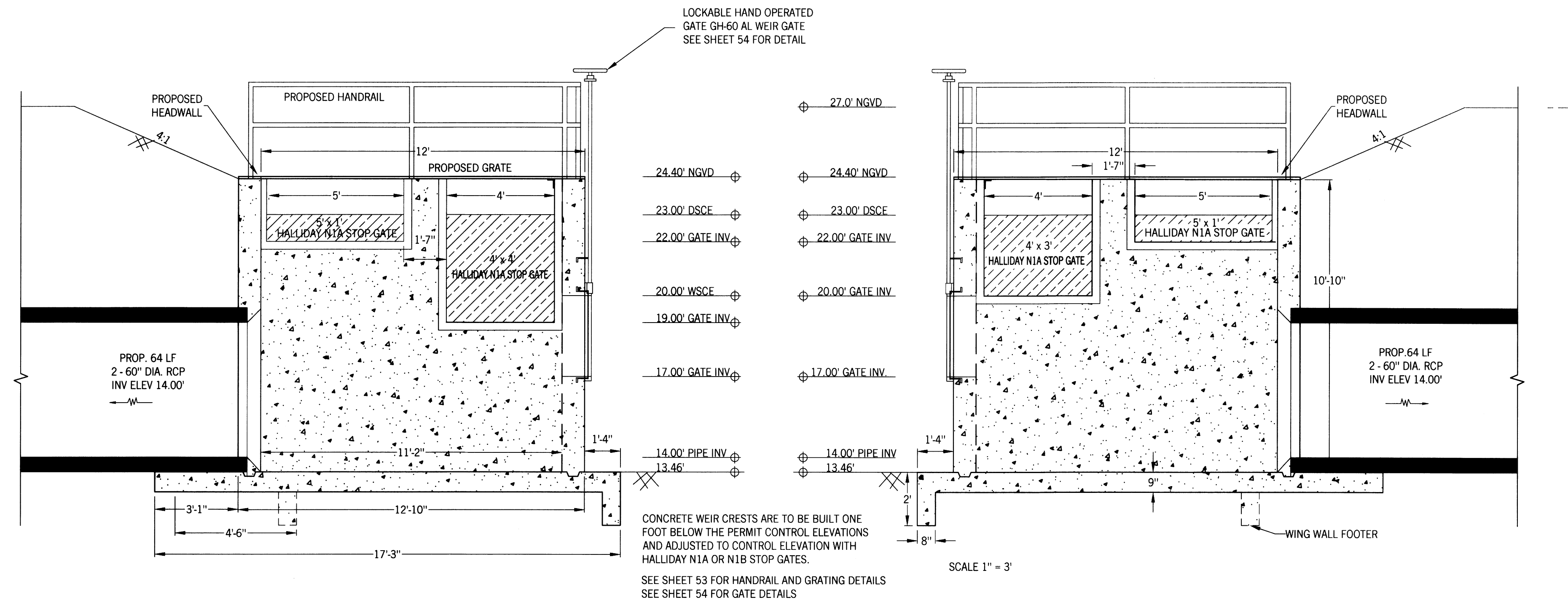
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 4 FRONT AND SIDE VIEWS

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

LADYFISH CANAL

DATE: Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
319 Inman Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization # 25852

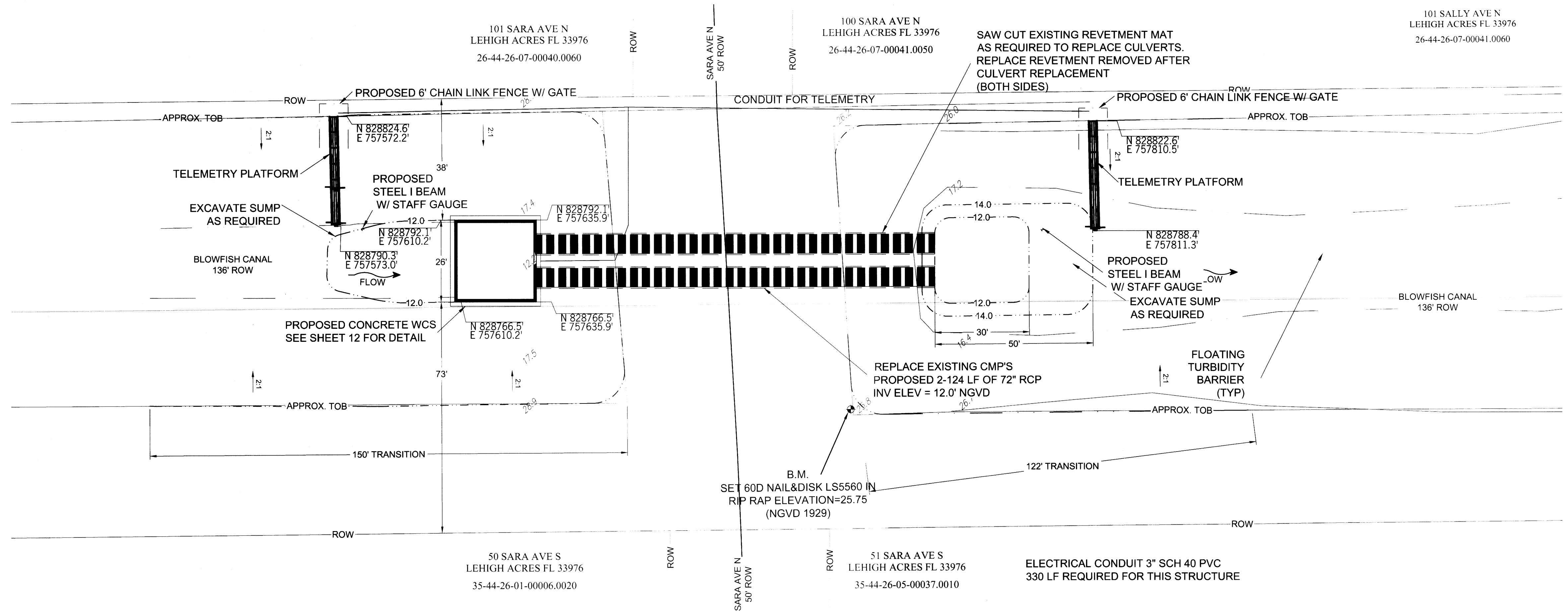


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RHT
APPROVED BY:
RHT
DATE:
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1" = 20'



1" = 20'



SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 5 AERIAL AND PLAN VIEW

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

Richard H. Thompson, P.E., # 46720
R.H.T. Engineering, Inc.
319 Jiman Street
Lehigh Acres, FL 33976
(239) 369-8900
Engineering Certificate of Authorization # 25852



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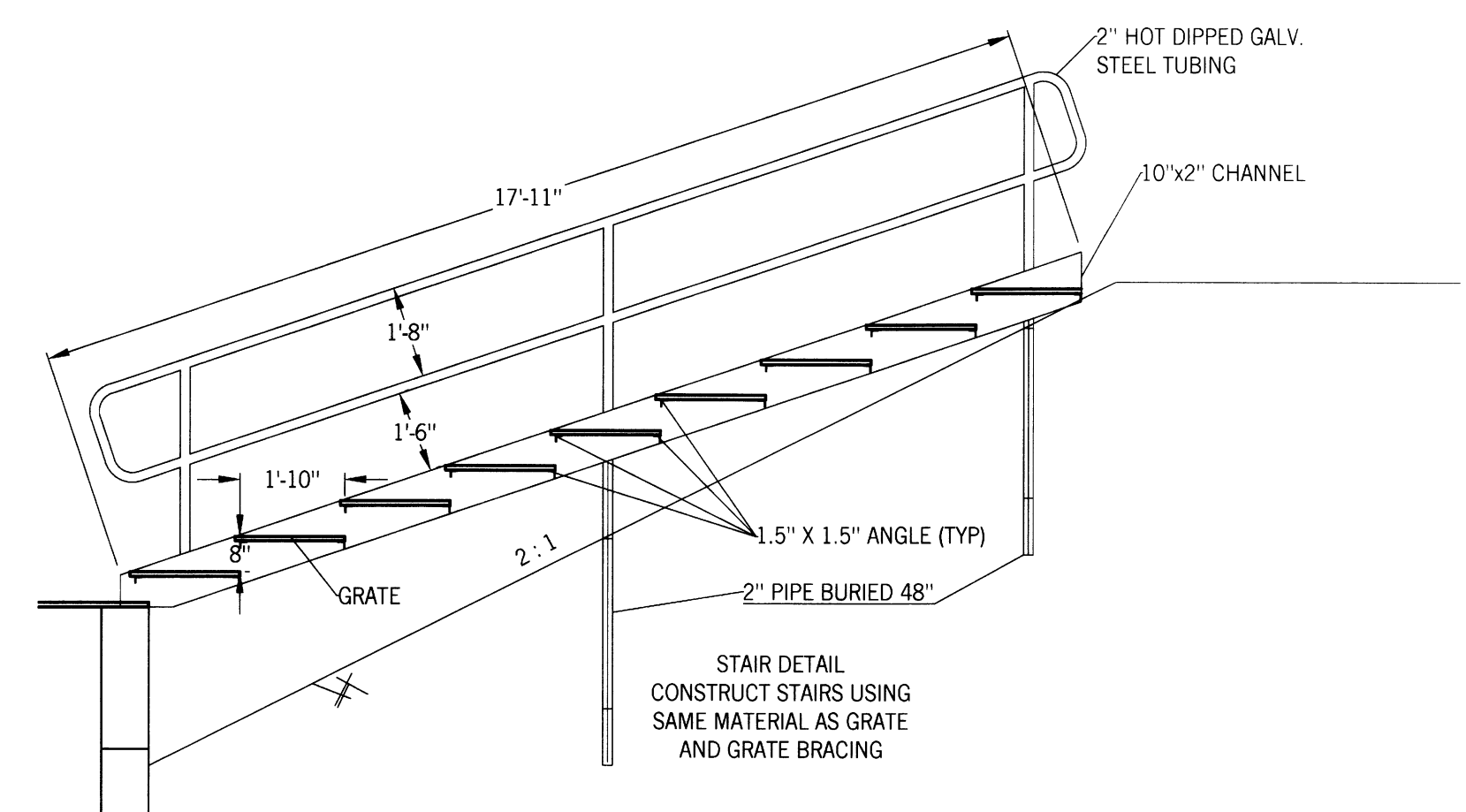
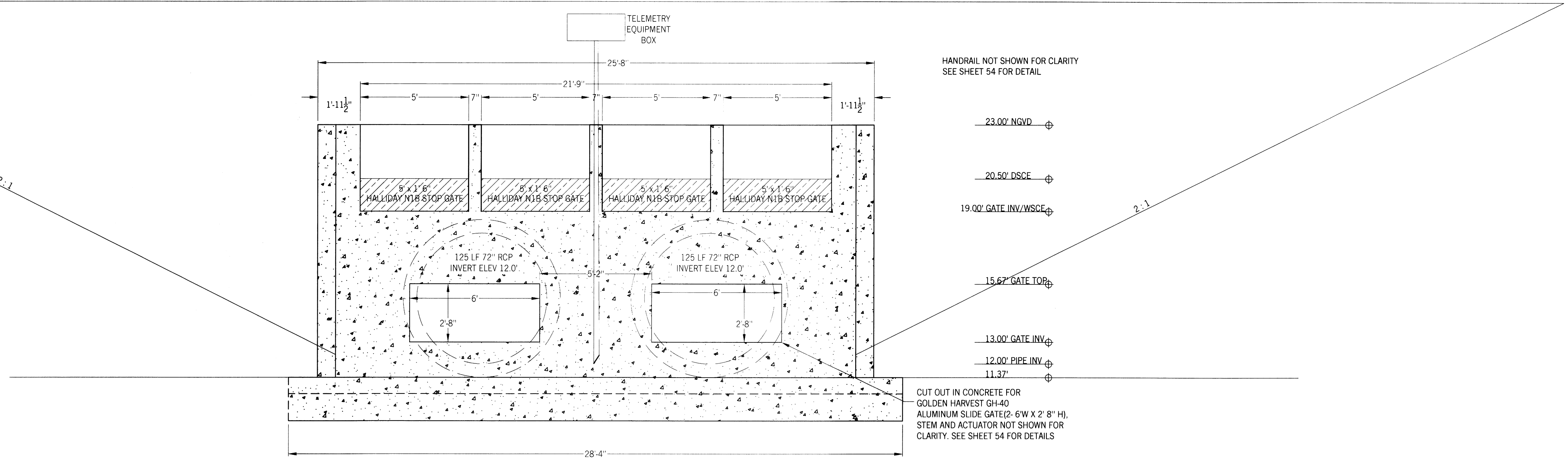
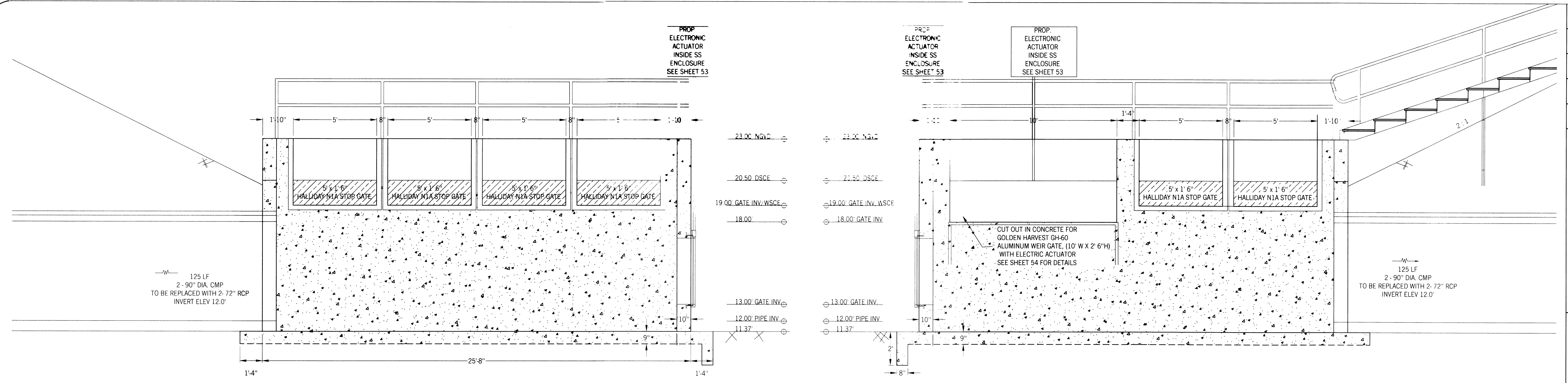
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 5 FRONT AND SIDE VIEWS

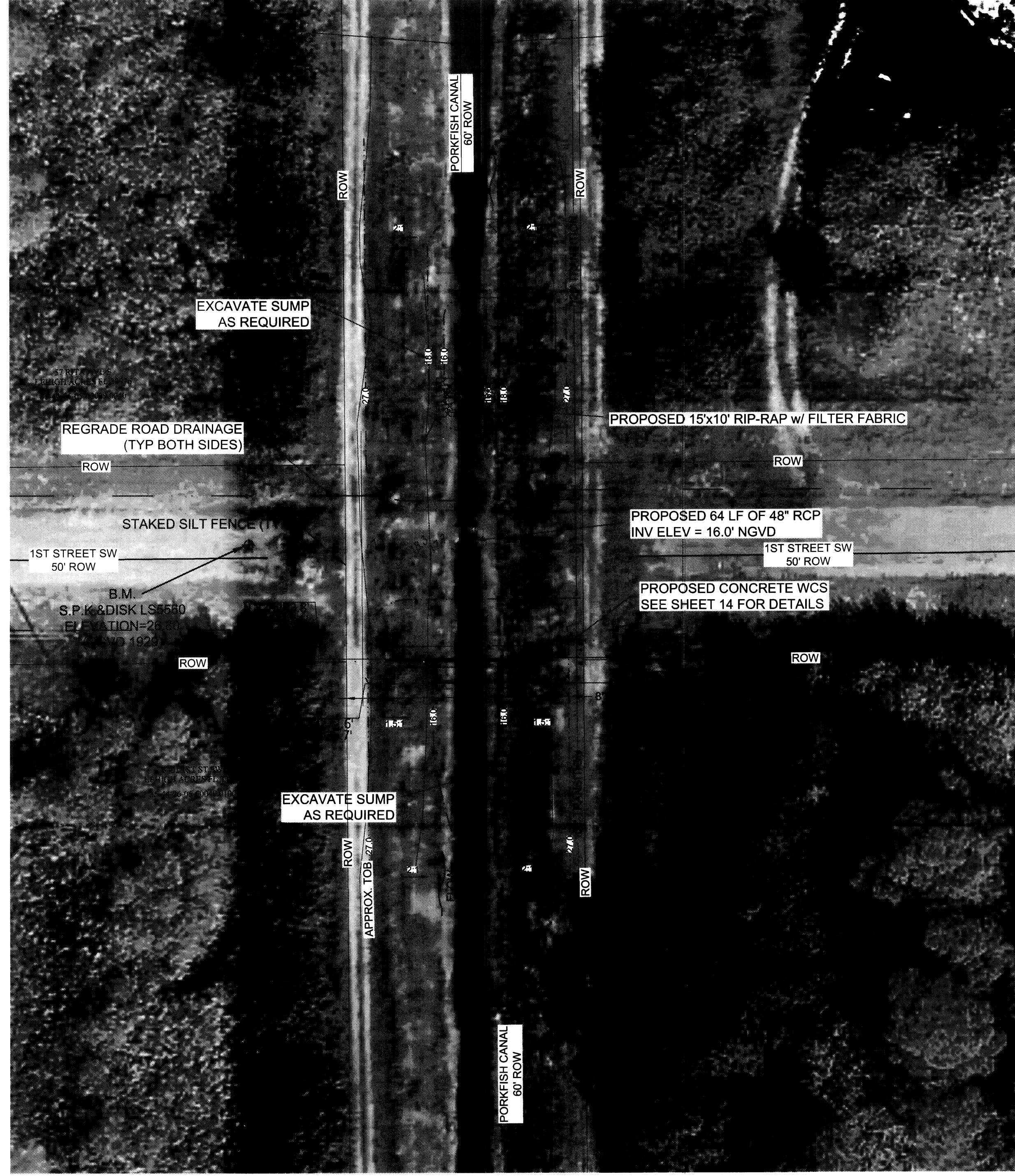
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

BLOWFISH CANAL

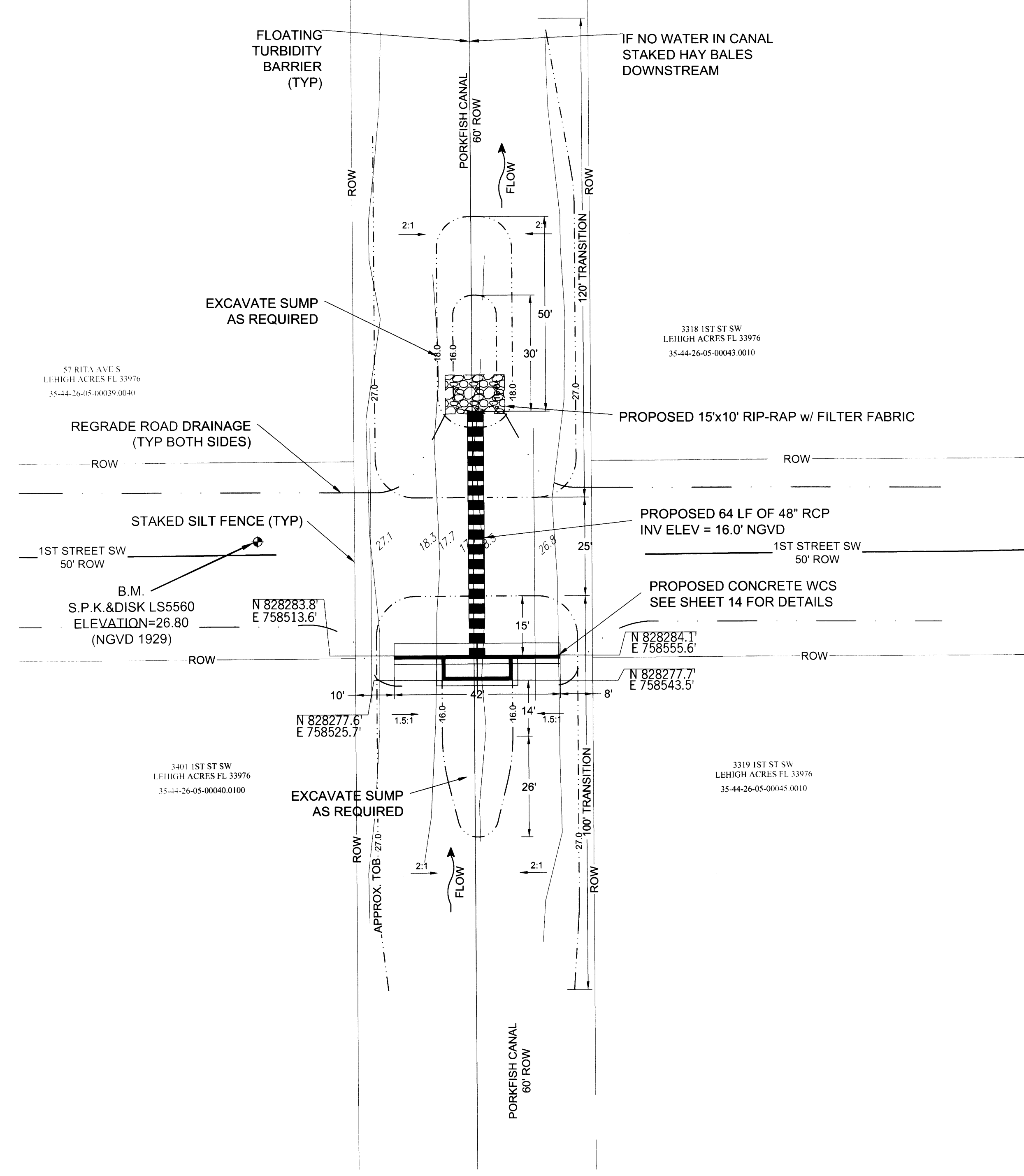
Richard L. Thompson, P.E., # 46720
R.H.T. Engineering, Inc.
370 Iron Street
Lehigh Acres, FL 33936
(239) 369-8999
Engineering Certificate of Authorization
25852



1" = 20'



1" = 20'



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SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)
 STRUCTURE 6 AERIAL AND PLAN VIEW
 CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

Richard H. Thompson, P.E., # 46720
R.H.T. Engineering, Inc.
 319 Inman Street
 Lehigh Acres, FL 33976
 (239) 369-8000
 Engineering Certificate of Authorization # 25852



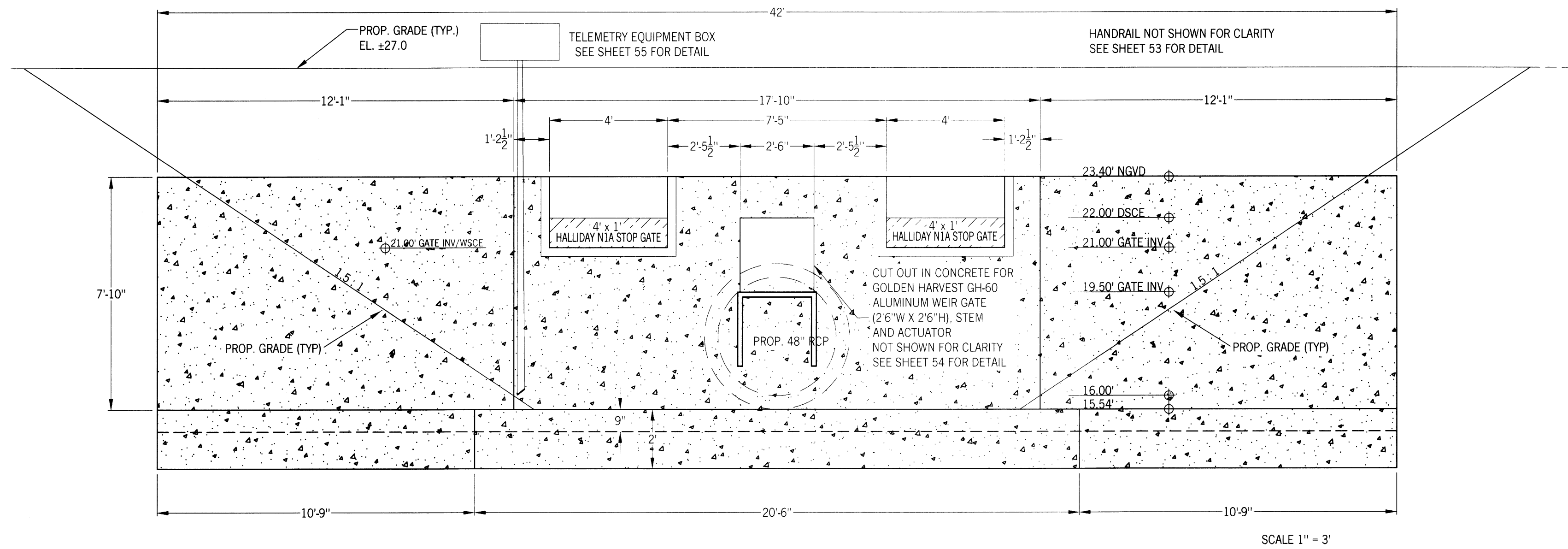
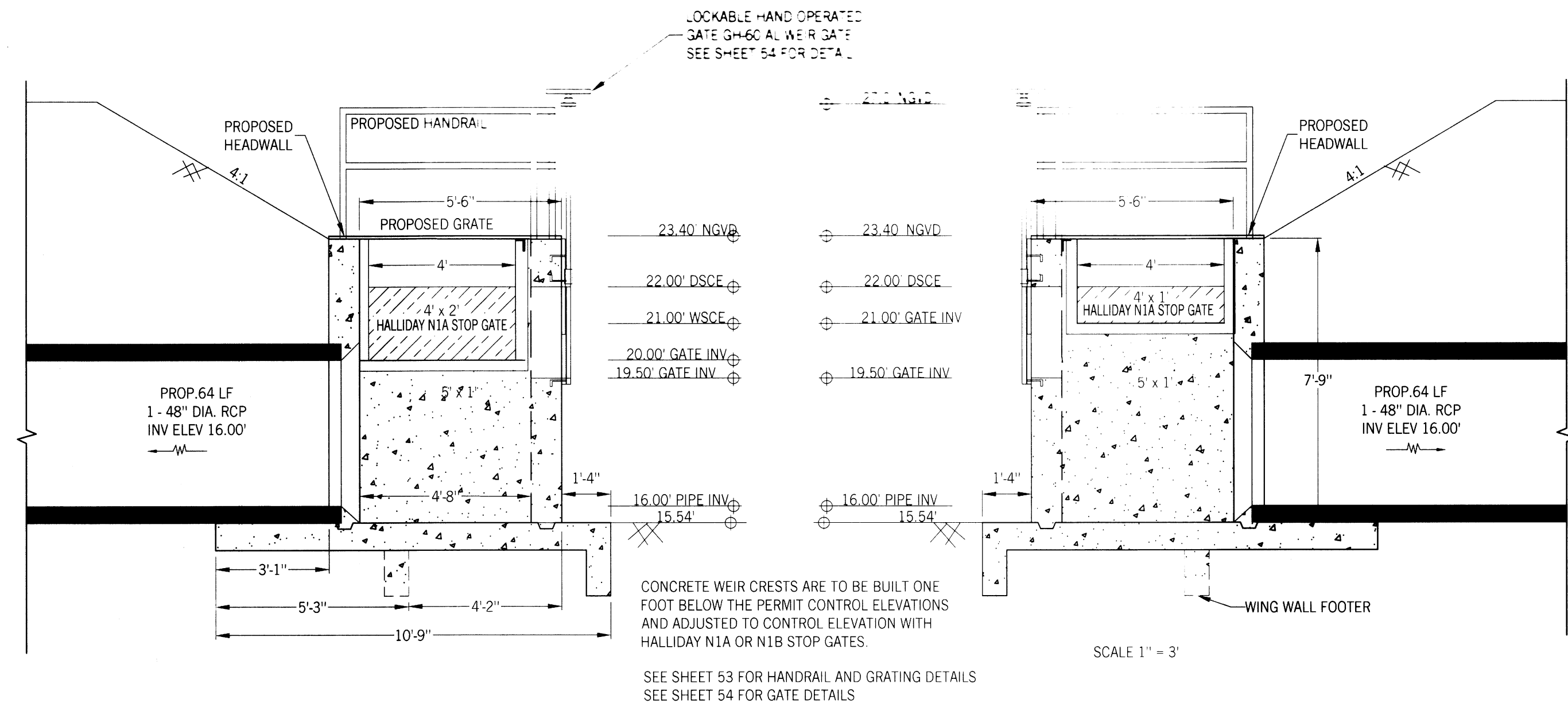
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SEPT 2015

REVISIONS



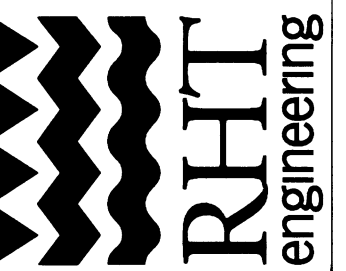
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 6 FRONT AND SIDE VIEWS

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

PORKFISH CANAL

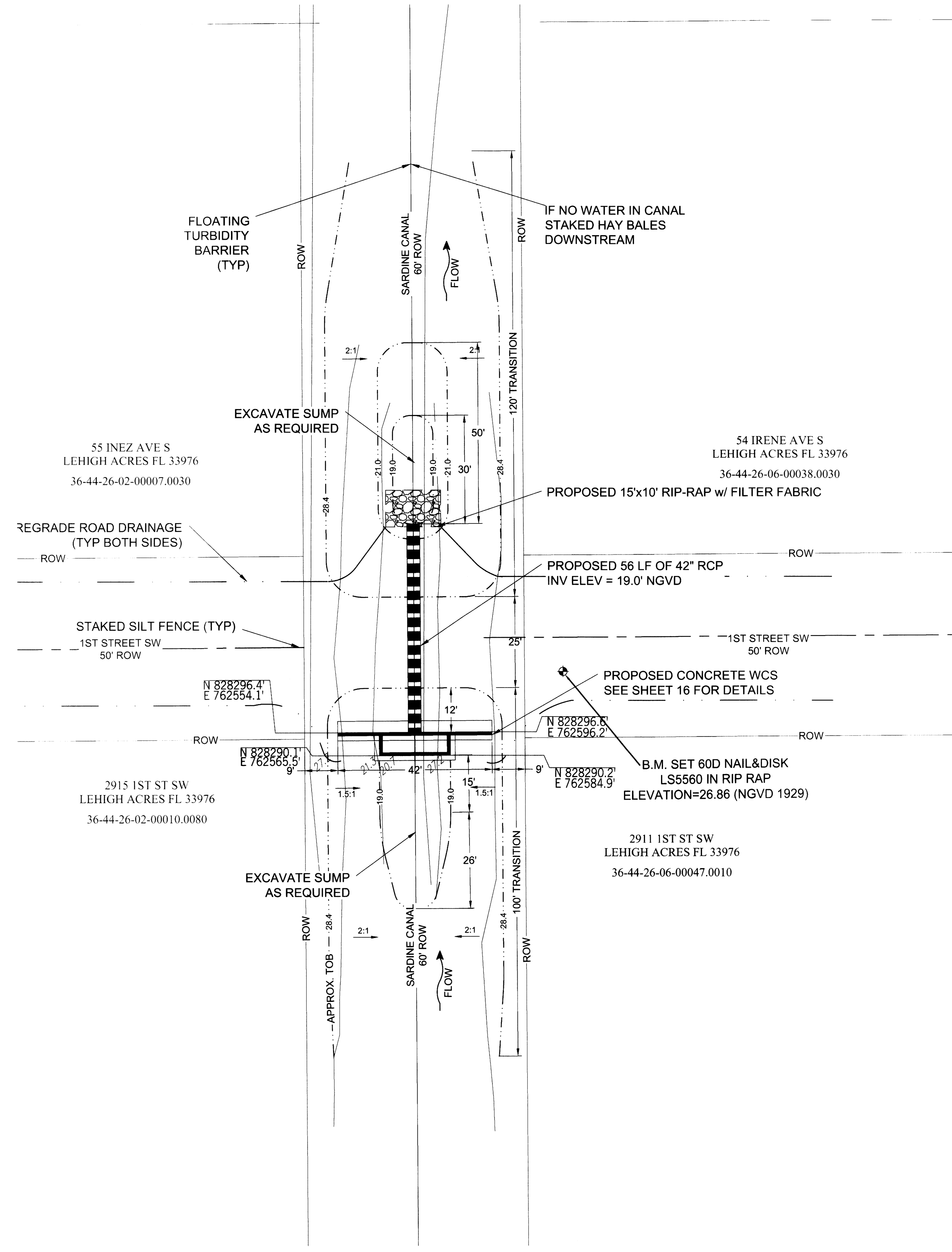
Richard L. Thompson, P.E. # 46721
R.H.T. Engineering, Inc.
 319 Inman Street
 Lehigh Acres, FL 33936
 (239) 369-8900
 Engineering Certificate of Authorization # 25862



1" = 20'
 N



1" = 20'
 N



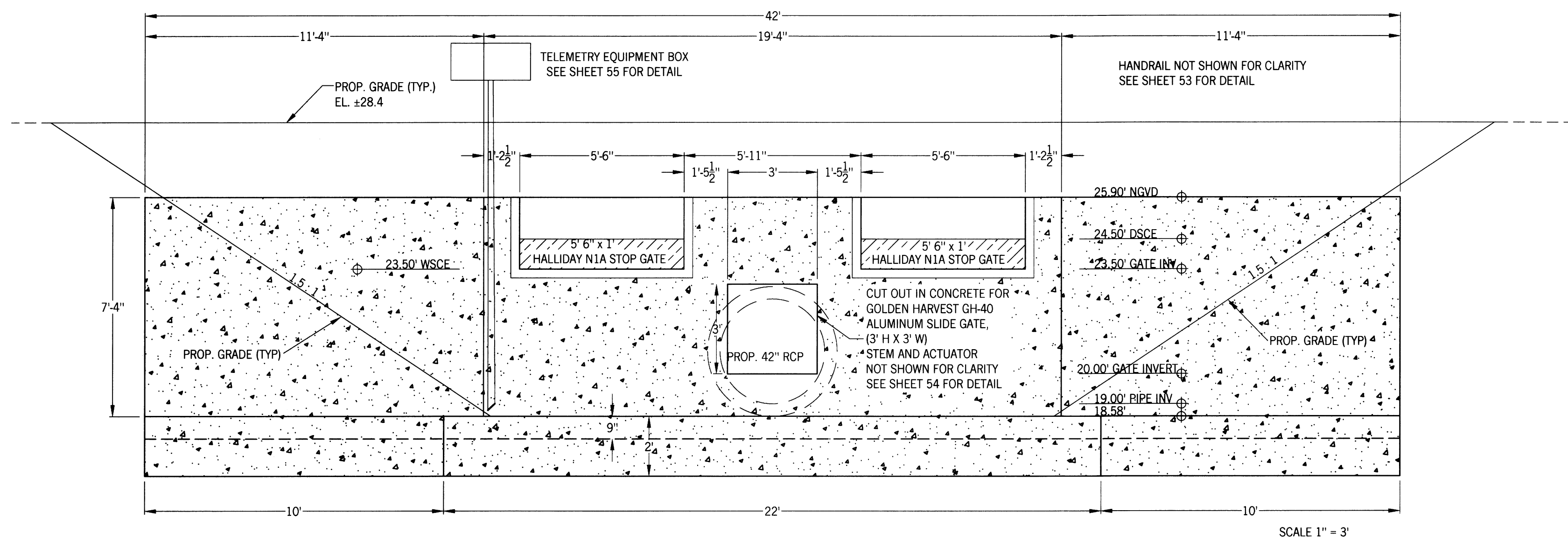
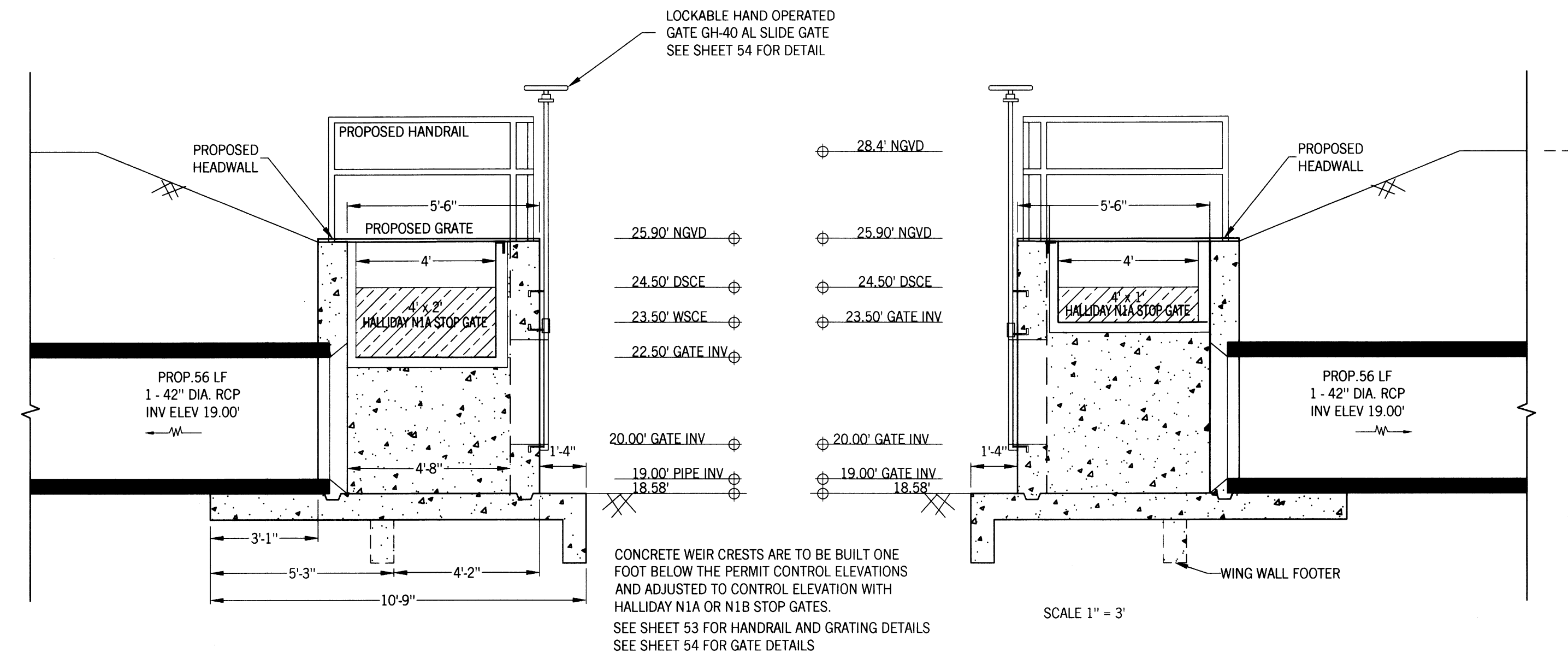
REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)
 STRUCTURE 7 AERIAL AND PLAN VIEW
 CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT
 SARDININE CANAL

Richard H. Thompson, P.E. #46726
R.H.T. Engineering, Inc.
 Lehigh Acres, FL 33976
 (239) 369-8900
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SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 7 FRONT AND SIDE VIEWS

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

SARDINE CANAL

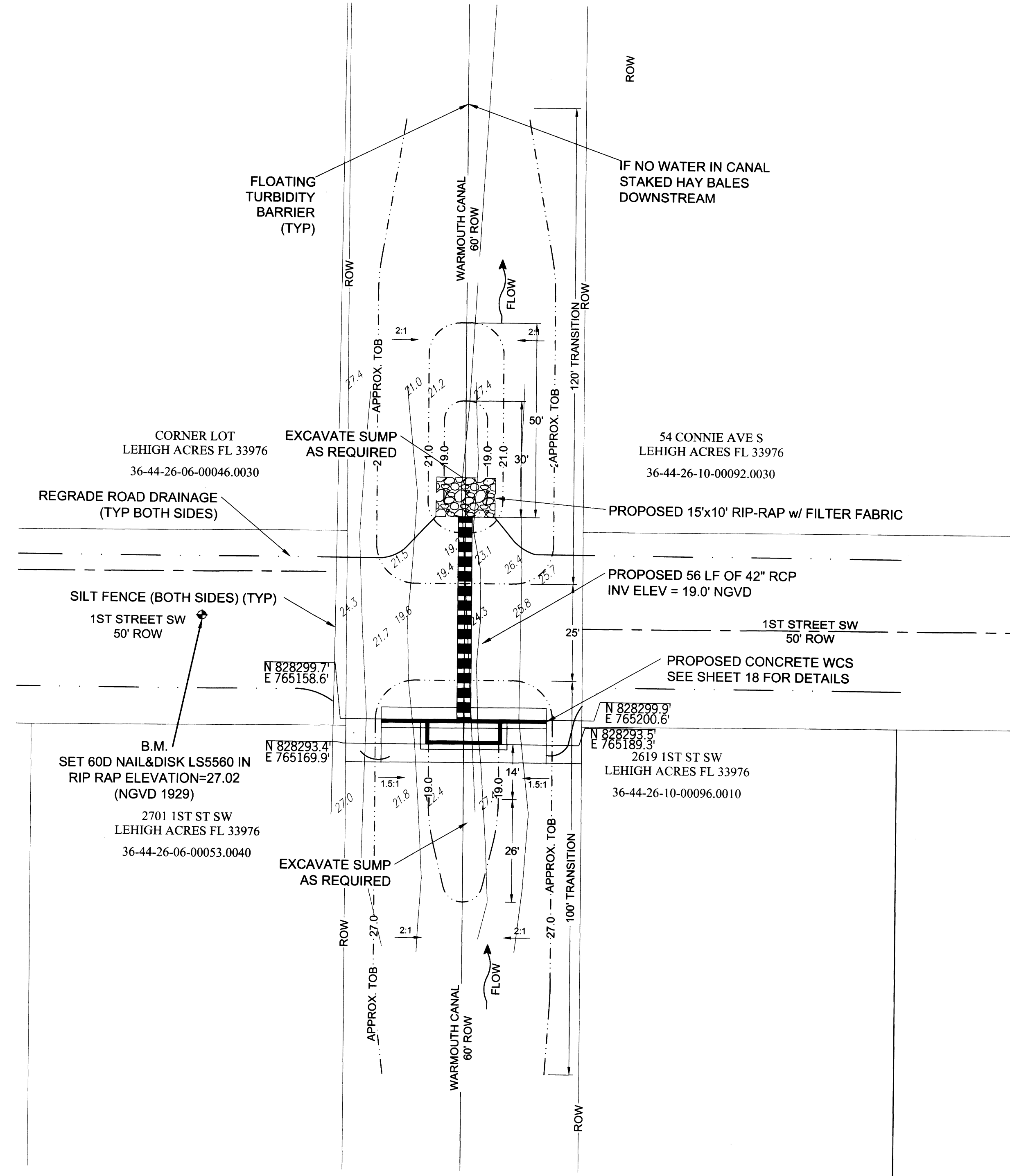
DATE:
Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
319 Inman Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization
25852



1" = 20'
N



1" = 20'
N



SHEET 17/56

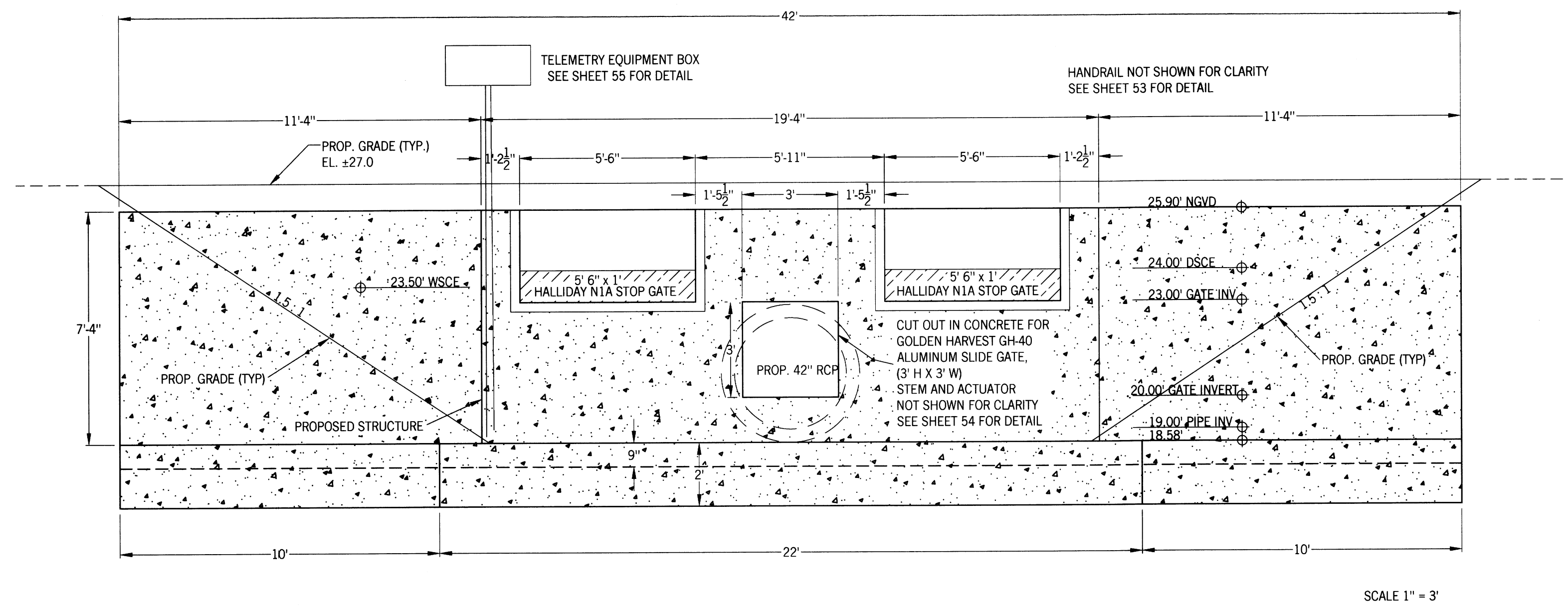
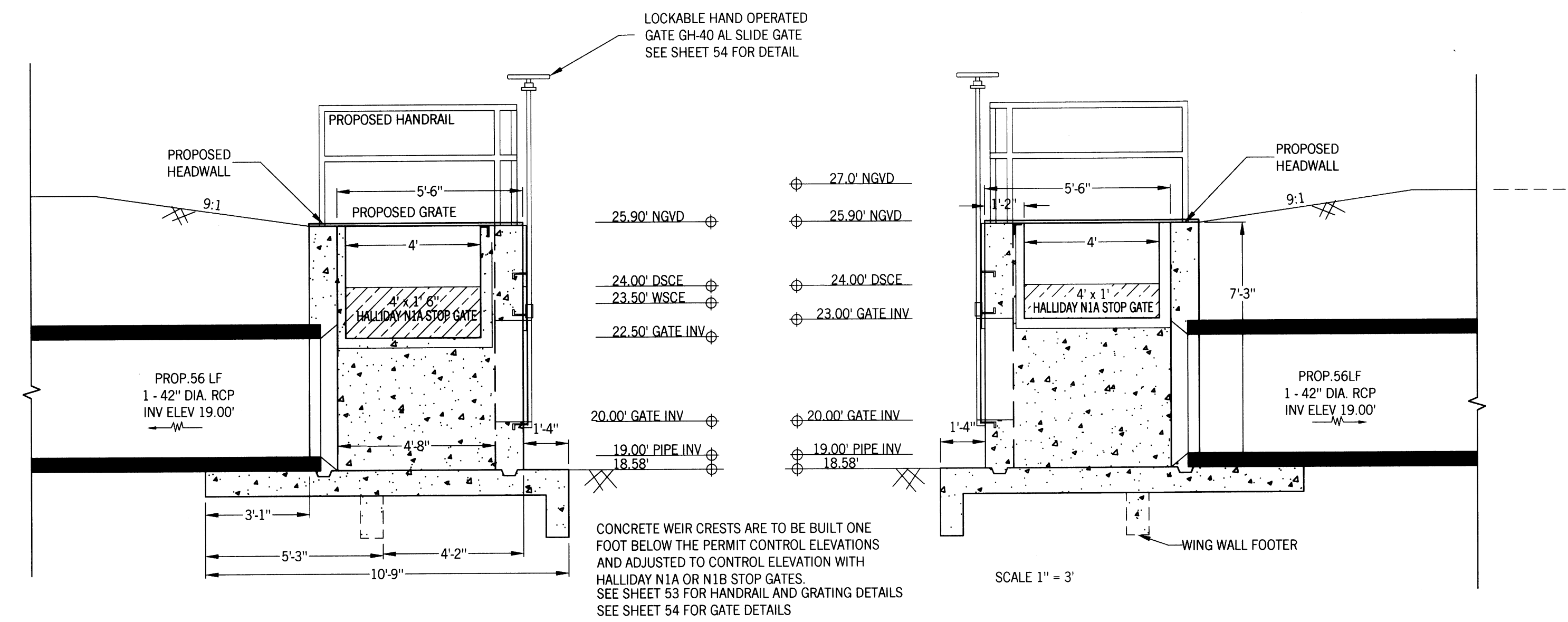
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SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)
STRUCTURE 8 AERIAL AND PLAN VIEW
 CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT
 WARMOUTH CANAL

DATE: 09/15/15
 Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
 319 Inman Street
 Lehigh Acres, FL 33936
 (239) 360-8900
 Engineering Certificate of Authorization
 # 25852





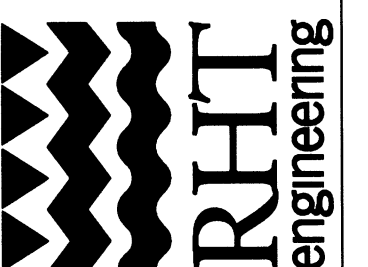
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 8 FRONT AND SIDE VIEWS

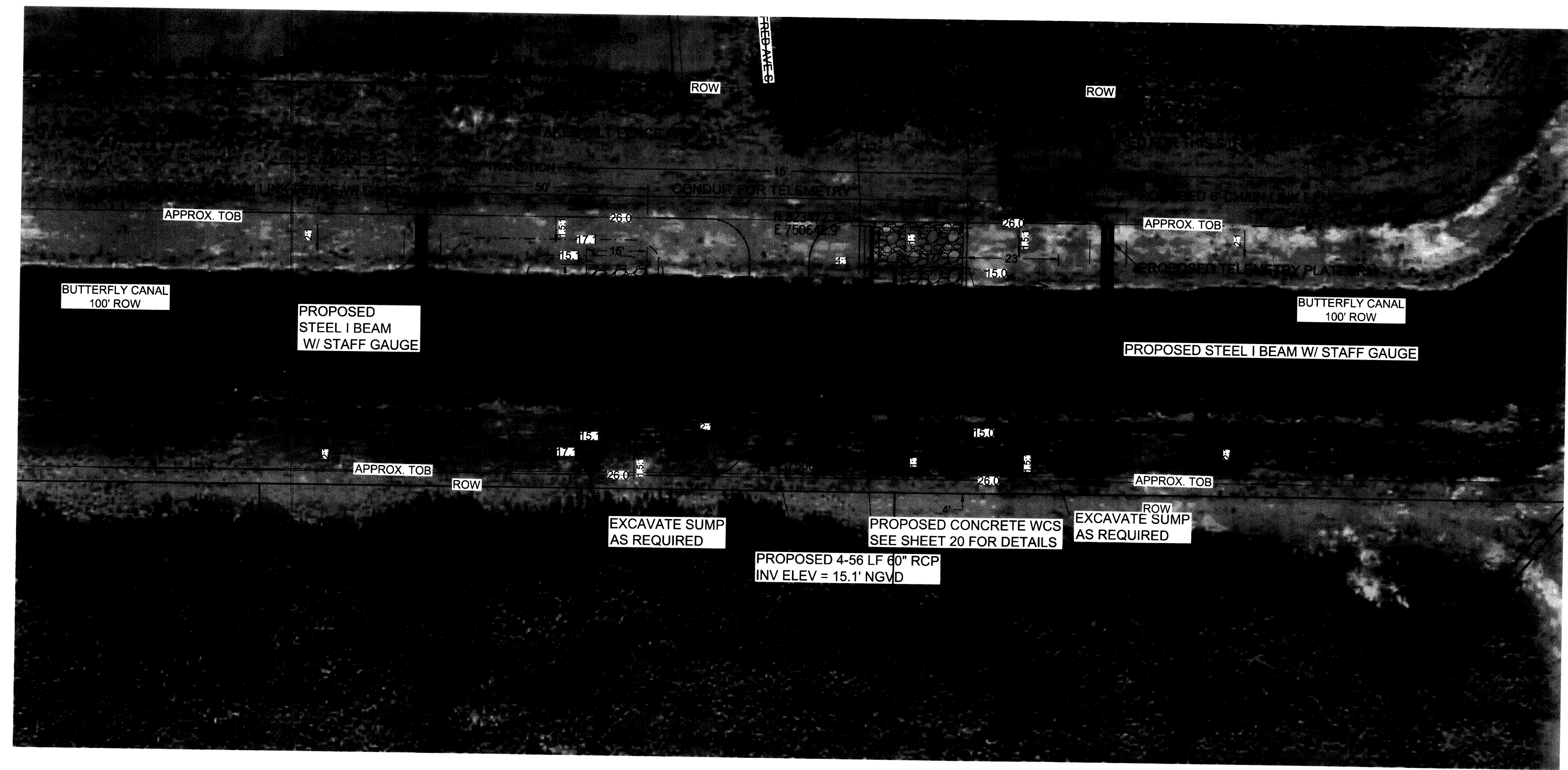
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

WARMOUTH CANAL

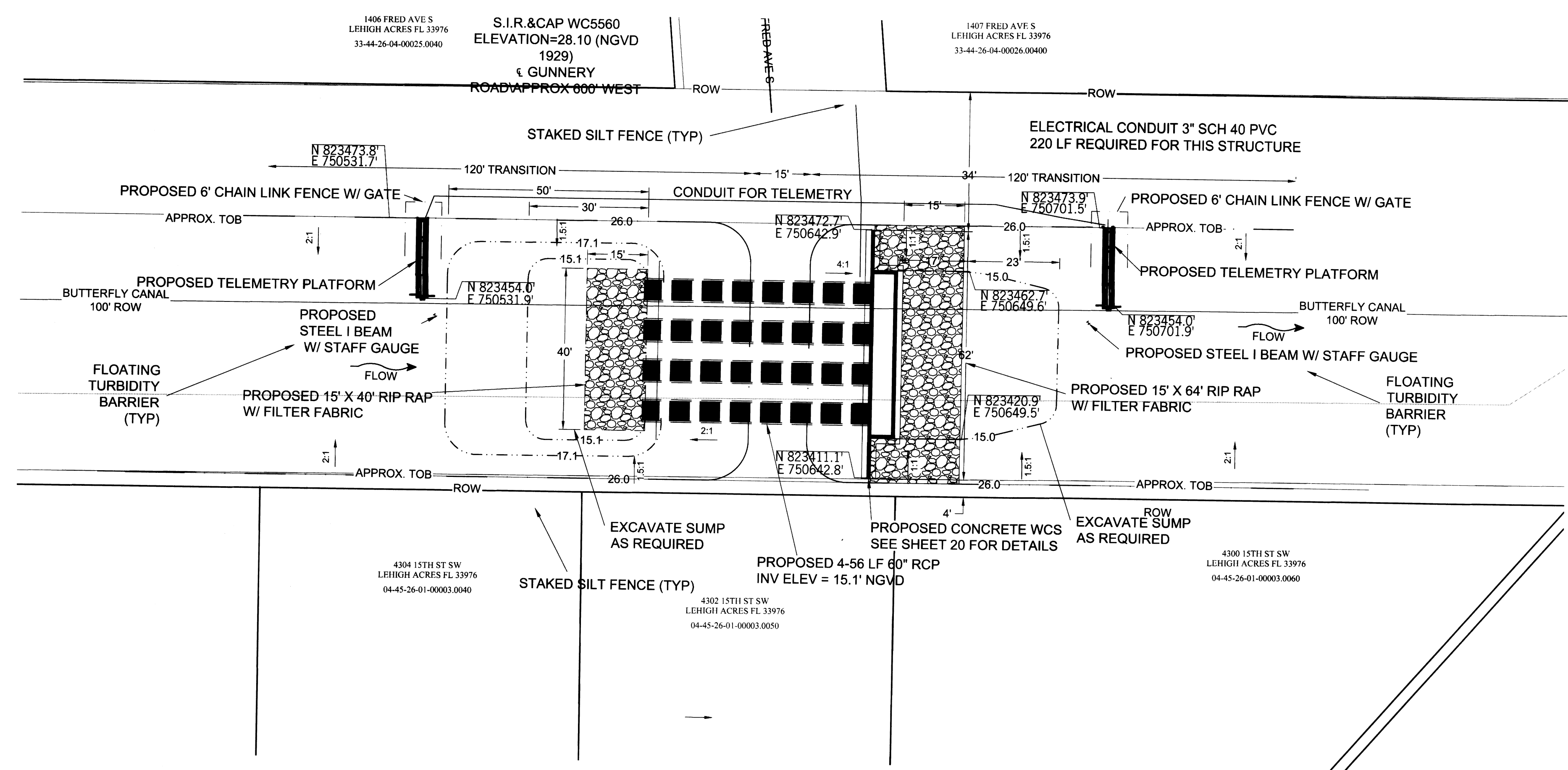
DATE: # 46720
Richard H. Thompson, P.E.
R.H.T. Engineering, Inc.
319 Jiman Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization # 25852



N
 1" = 20'



N
 1" = 20'



SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 9 AERIAL AND PLAN VIEW

REVISIONS

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

BUTTERFLY CANAL

DATE: RICHARD H. THOMPSON, P.E. # 46720
 R.H.T. Engineering, Inc.
 319 Inman Street
 Lehigh Acres, FL 33956
 (239) 369-8900
 Engineering Certificate of Authorization # 22852



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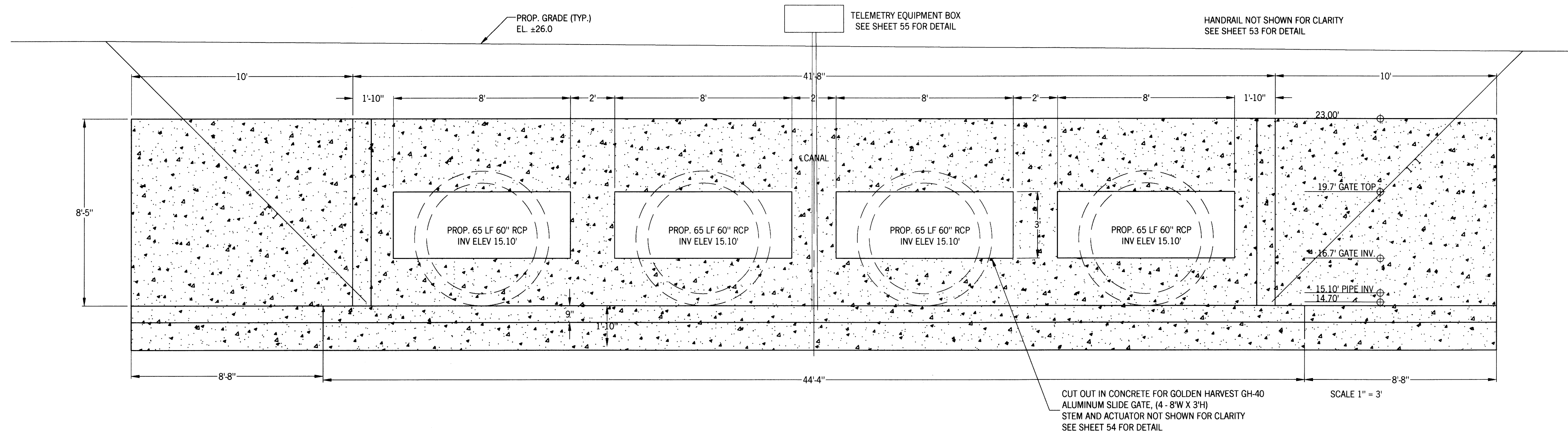
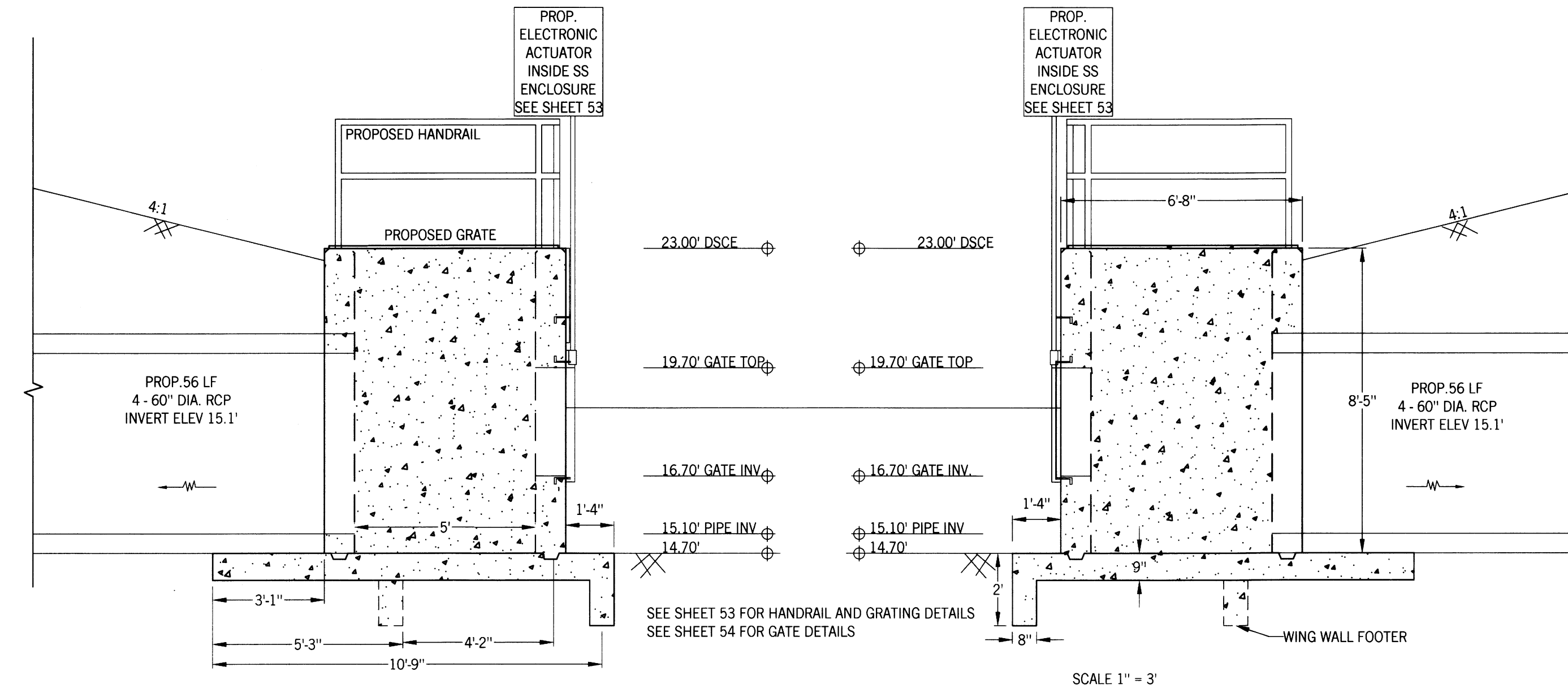
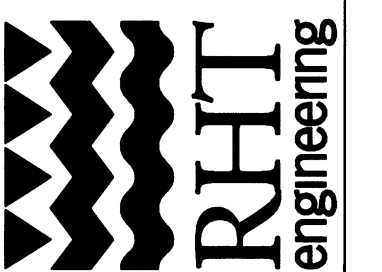
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 9 FRONT AND SIDE VIEWS

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

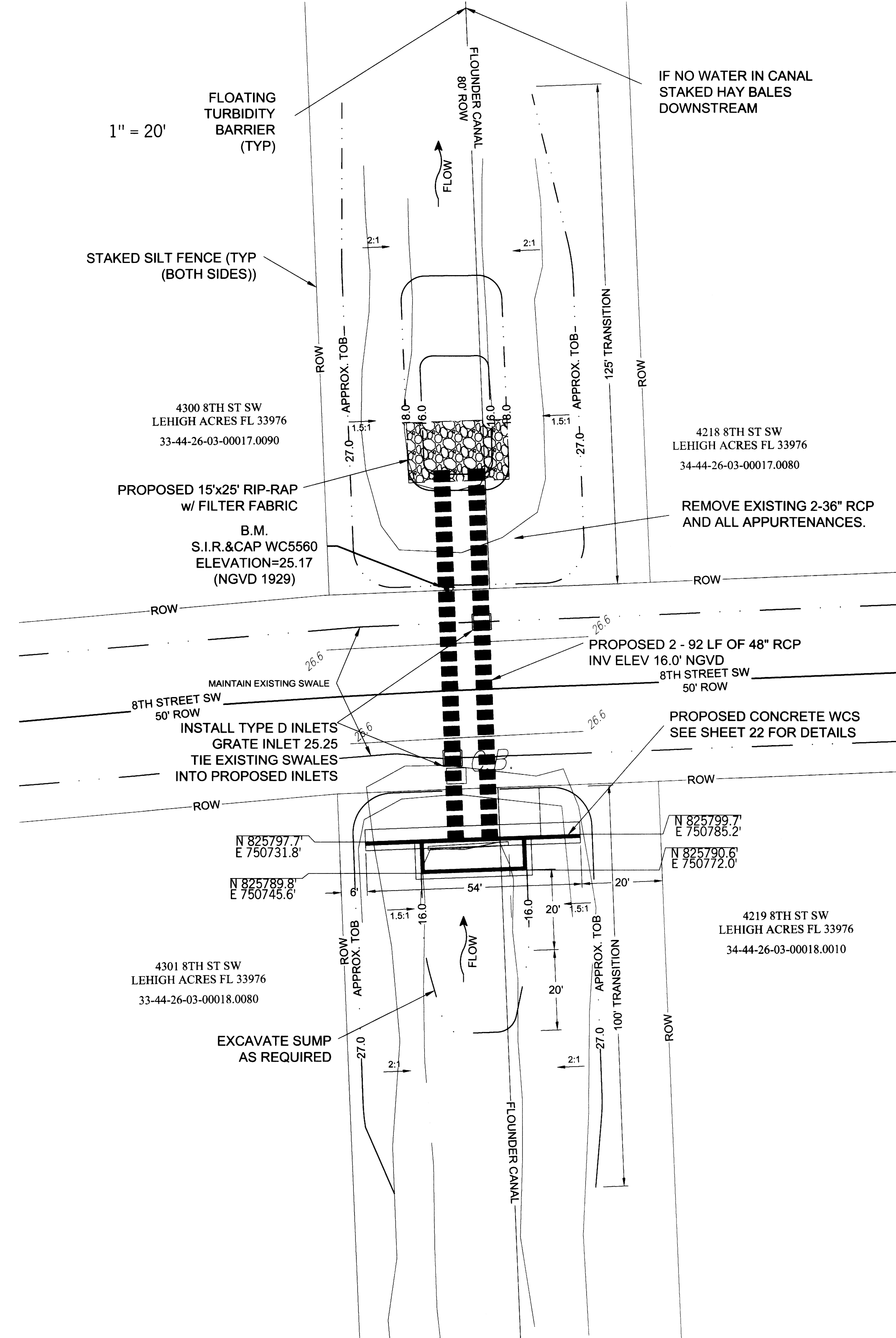
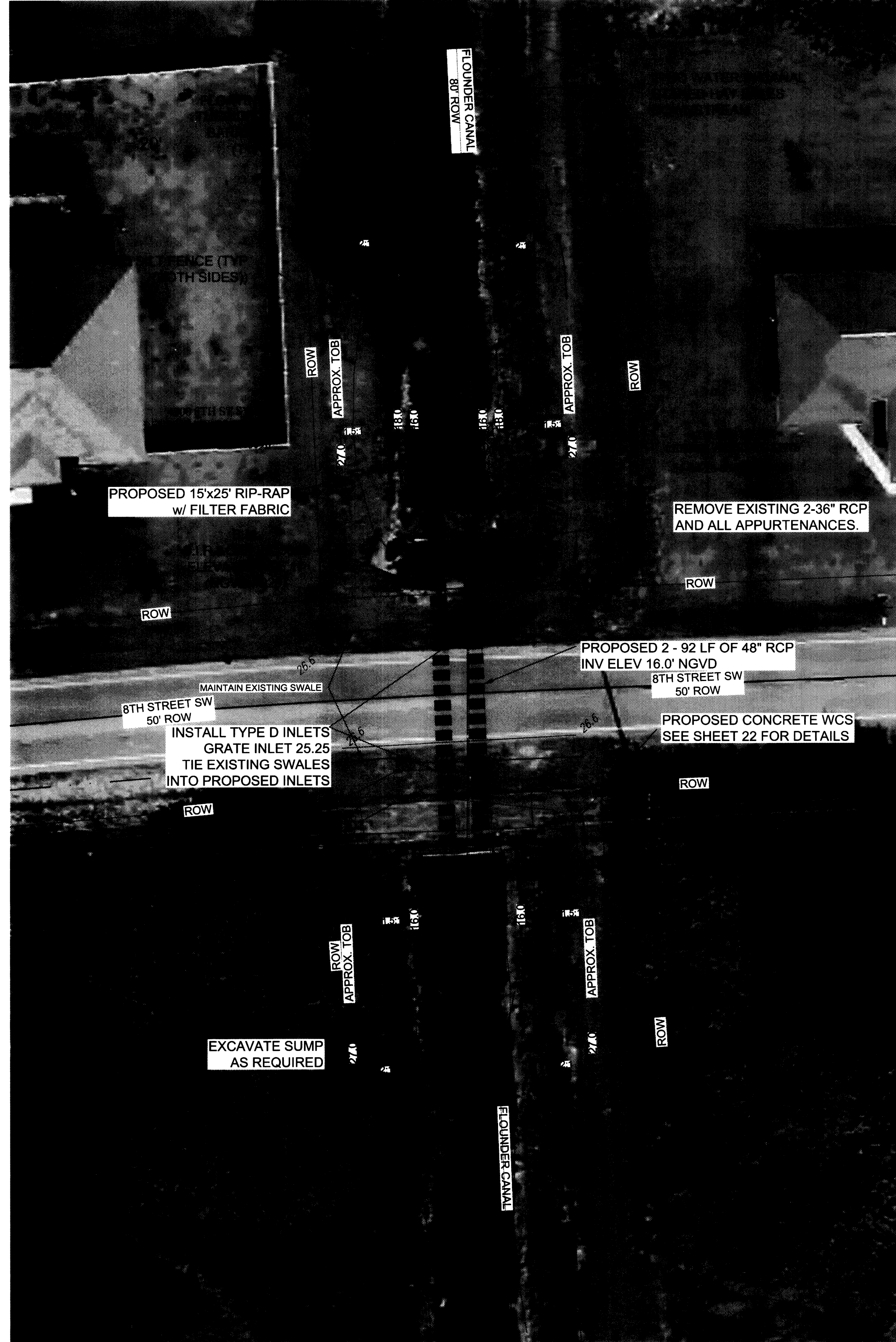
BUTTERFLY CANAL

DATE
Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
319 Inman Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization
25852



CUT OUT IN CONCRETE FOR GOLDEN HARVEST GH-40 ALUMINUM SLIDE GATE, (4 - 8'W X 3'H) STEM AND ACTUATOR NOT SHOWN FOR CLARITY SEE SHEET 54 FOR DETAIL

SCALE 1" = 3'



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APPROVED BY:	RHT
DATE:	SEPT 2015

REVISIONS	

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

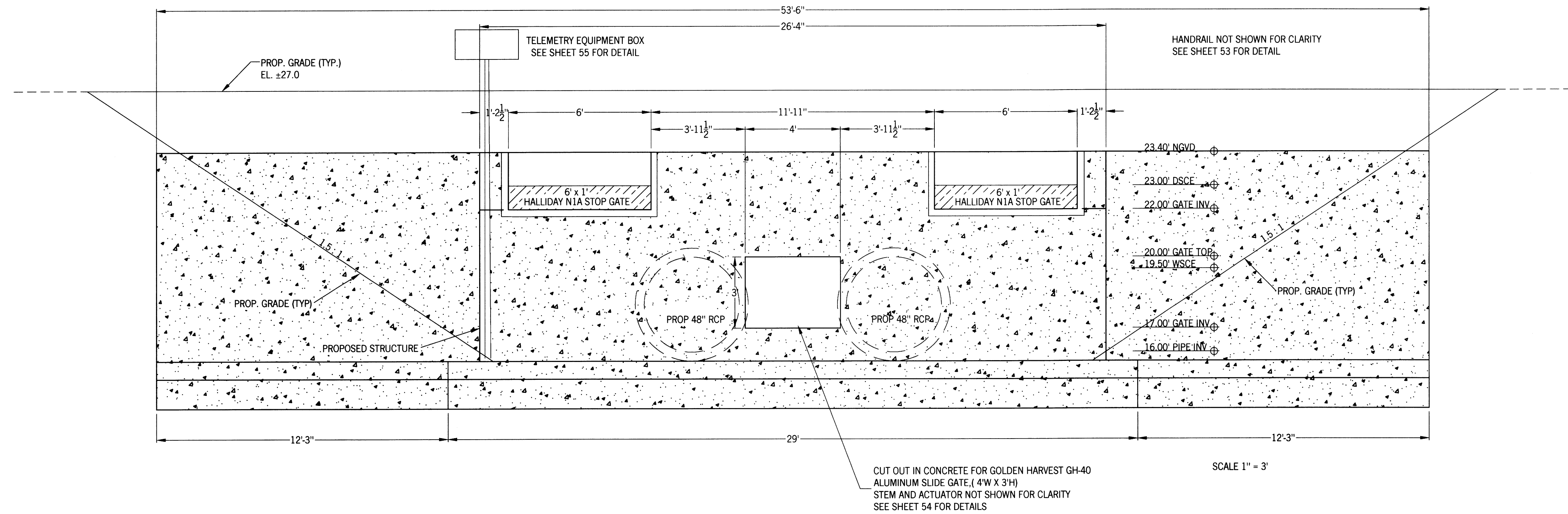
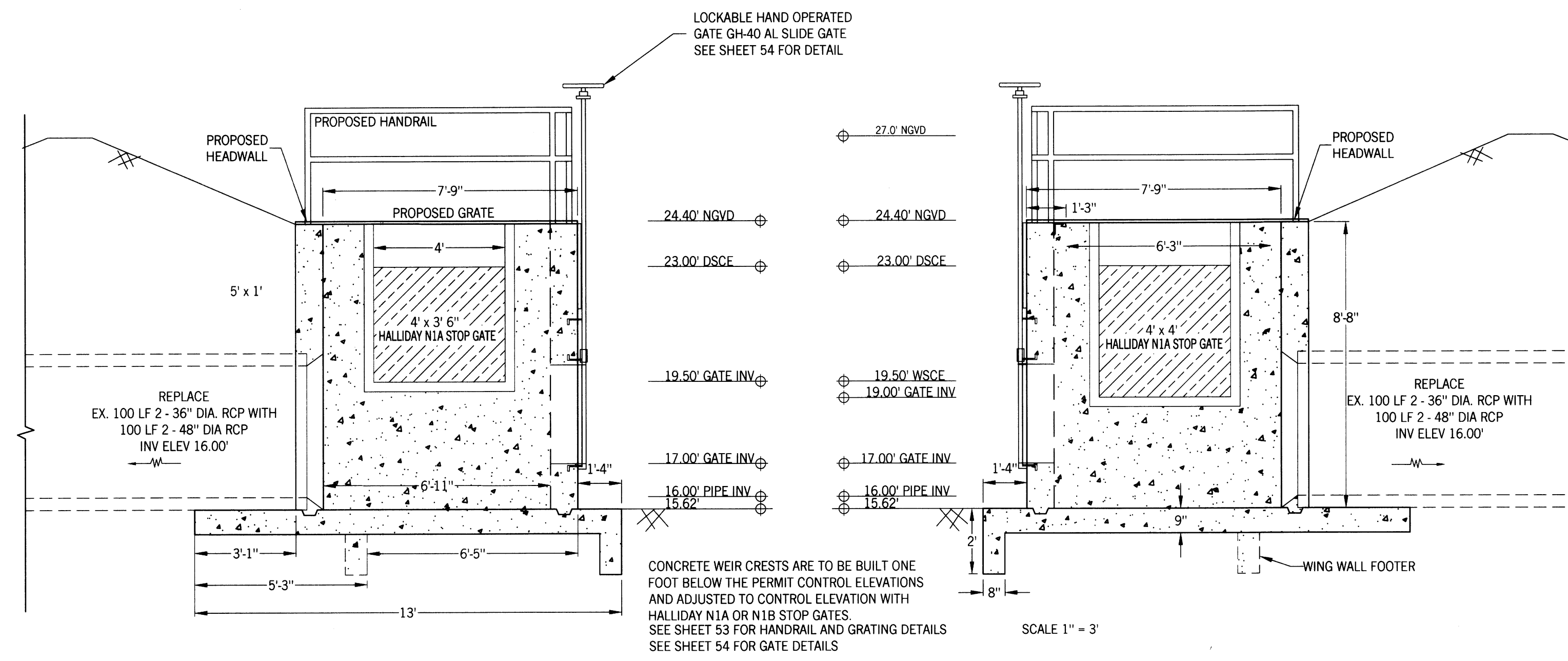
STRUCTURE 10 AERIAL AND PLAN VIEW

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

DATE: _____
 Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
 310 Lehigh Street
 Lehigh Acres, FL 33936
 (239) 369-8900
 Engineering Certificate of Authorization
 # 28852



REVISIONS



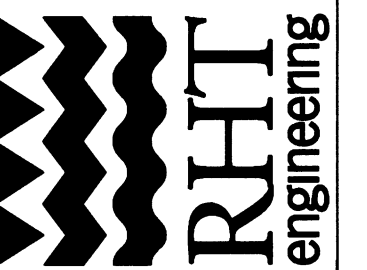
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 10 FRONT AND SIDE VIEWS

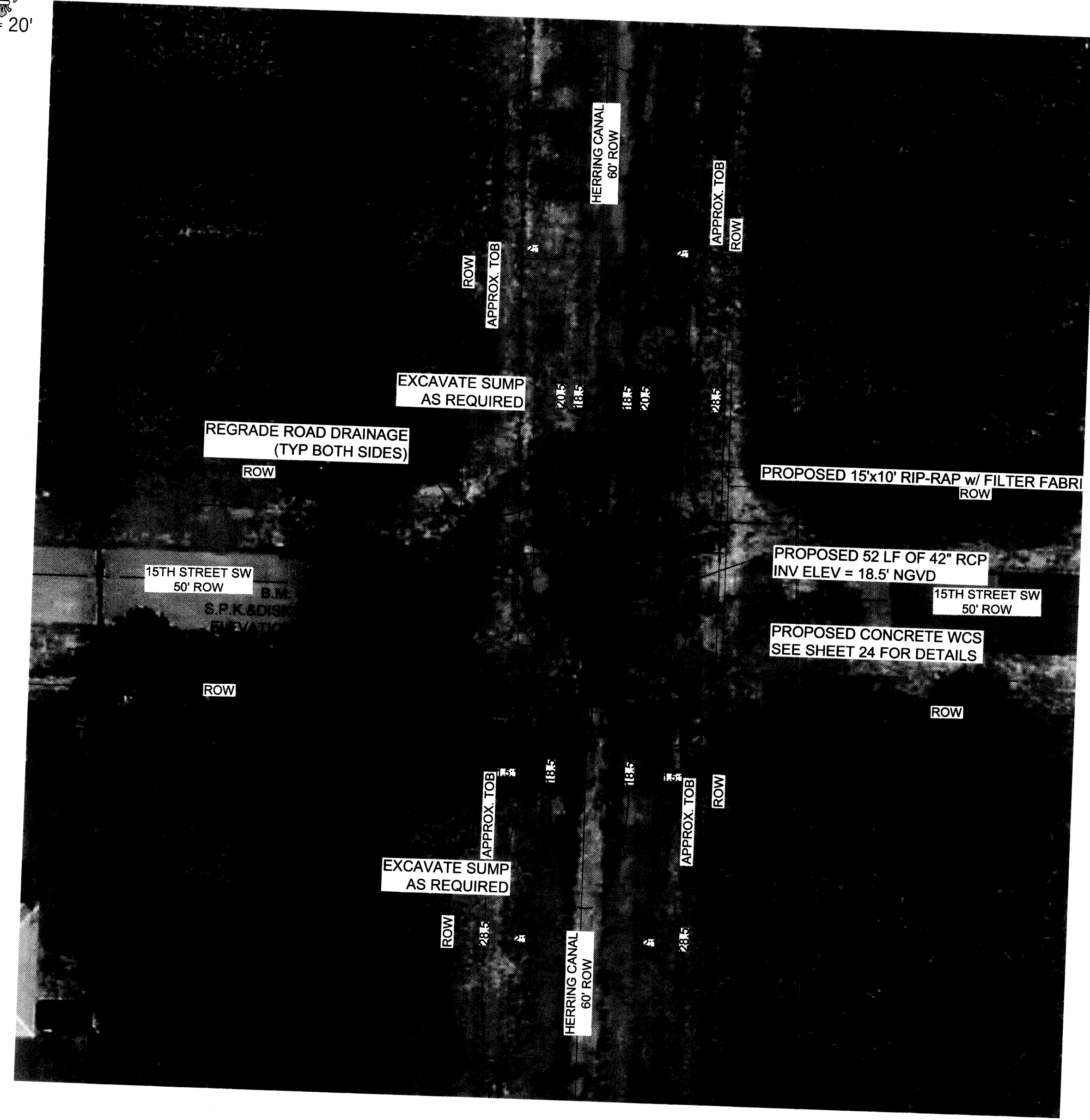
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

FLOUNDER CANAL

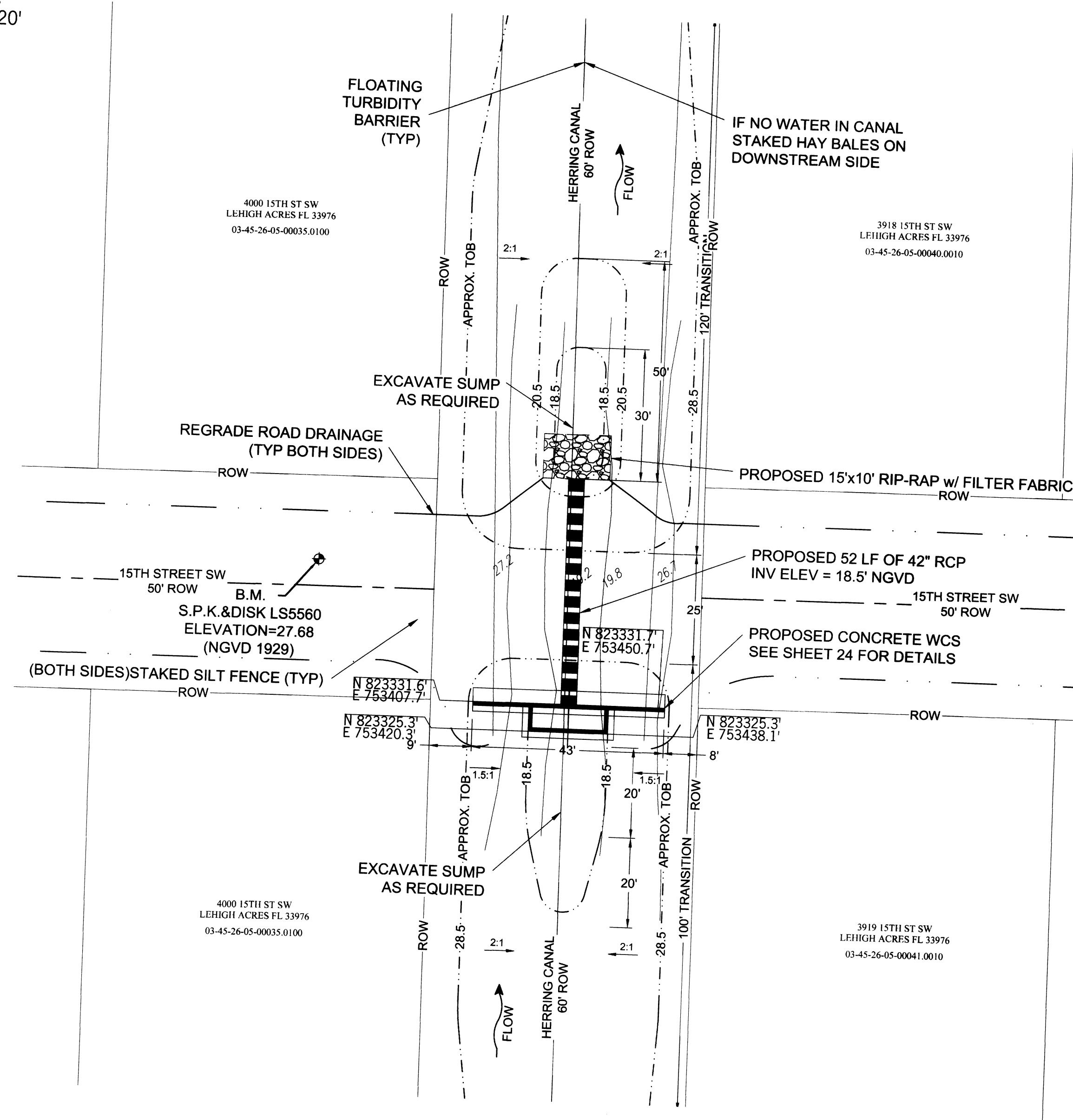
DATE: Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
 319 Inman Street
 Lehigh Acres, FL 33936
 (259) 369-8900
 Engineering Certificate of Authorization
 # 25852



1" = 20'
N



1" = 20'
N



SHEET 23/56

DRAWN BY:
RHT

CHECKED BY:
RHT

APPROVED BY:
RHT

DATE:
SEPT 2015

REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 12 AERIAL AND PLAN VIEW

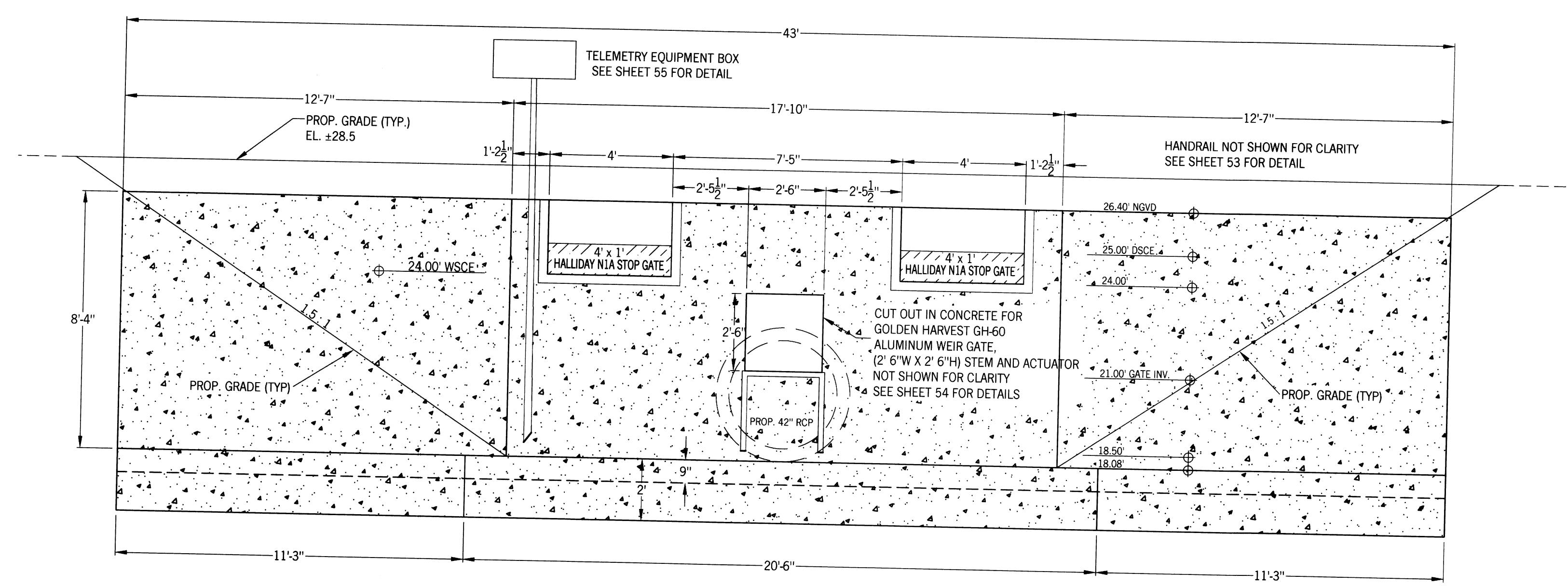
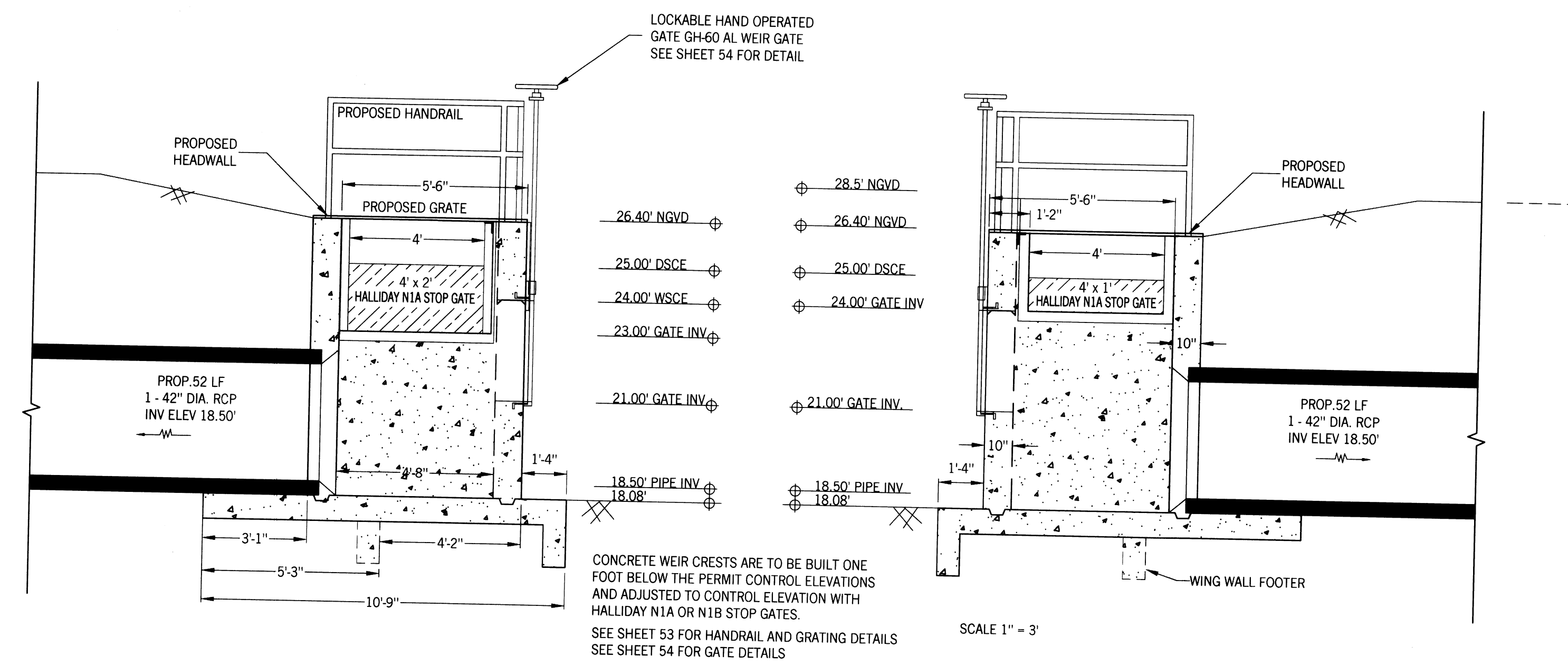
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

HERRING CANAL

DATE:
Richard H. Thompson, P.E. # 46720

R.H.T. Engineering, Inc.
319 Inman Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization
25882





SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 12 FRONT AND SIDE VIEWS

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

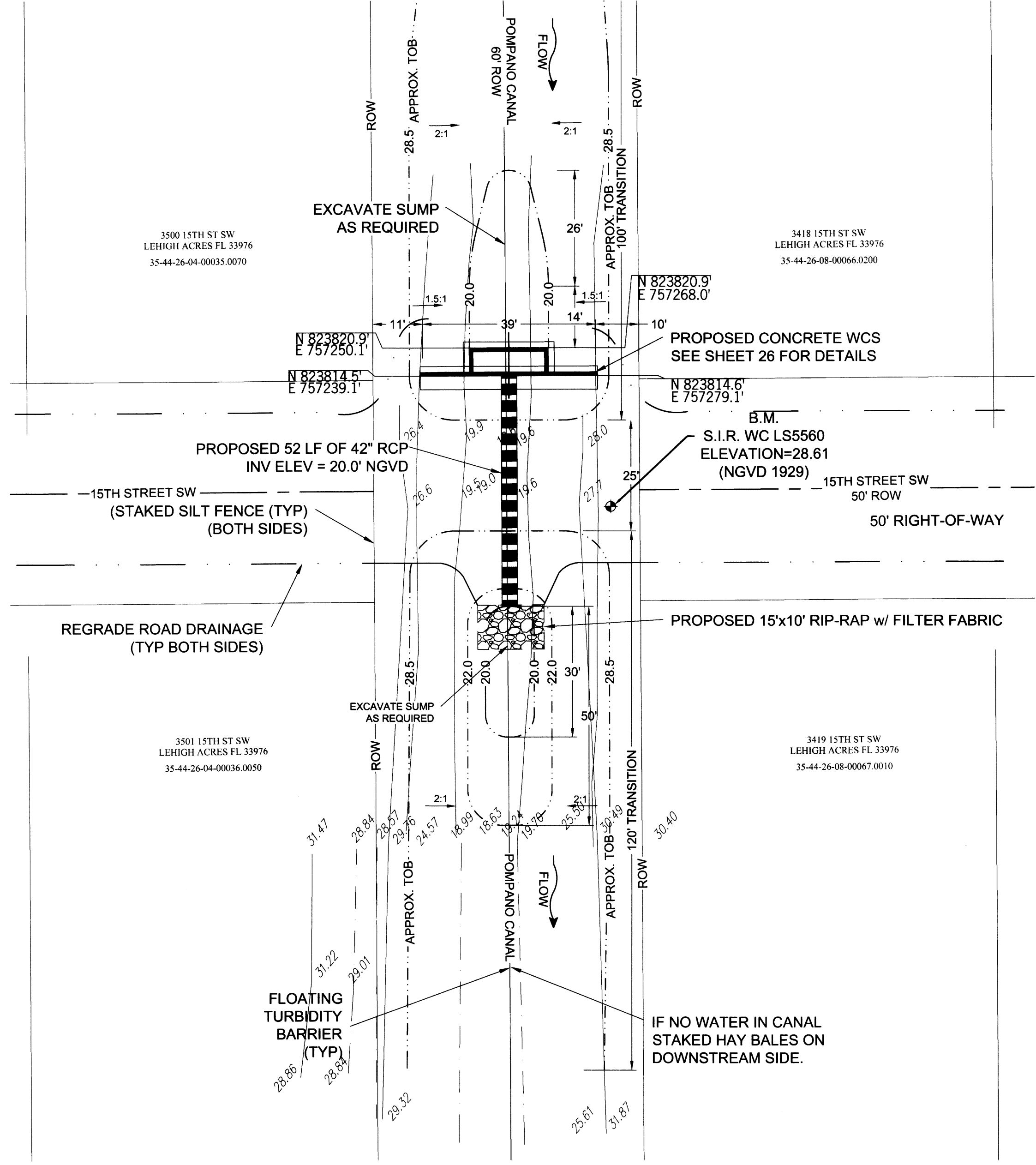
DATE: # 46720
 Richard H. Thompson, P.E.
R.H.T. Engineering, Inc.
 319 Innan Street
 Lehigh Acres, FL 33936
 (239) 369-8900
 Engineering Certificate of Authorization
 # 25852



1" = 20'
N



1" = 20'
N



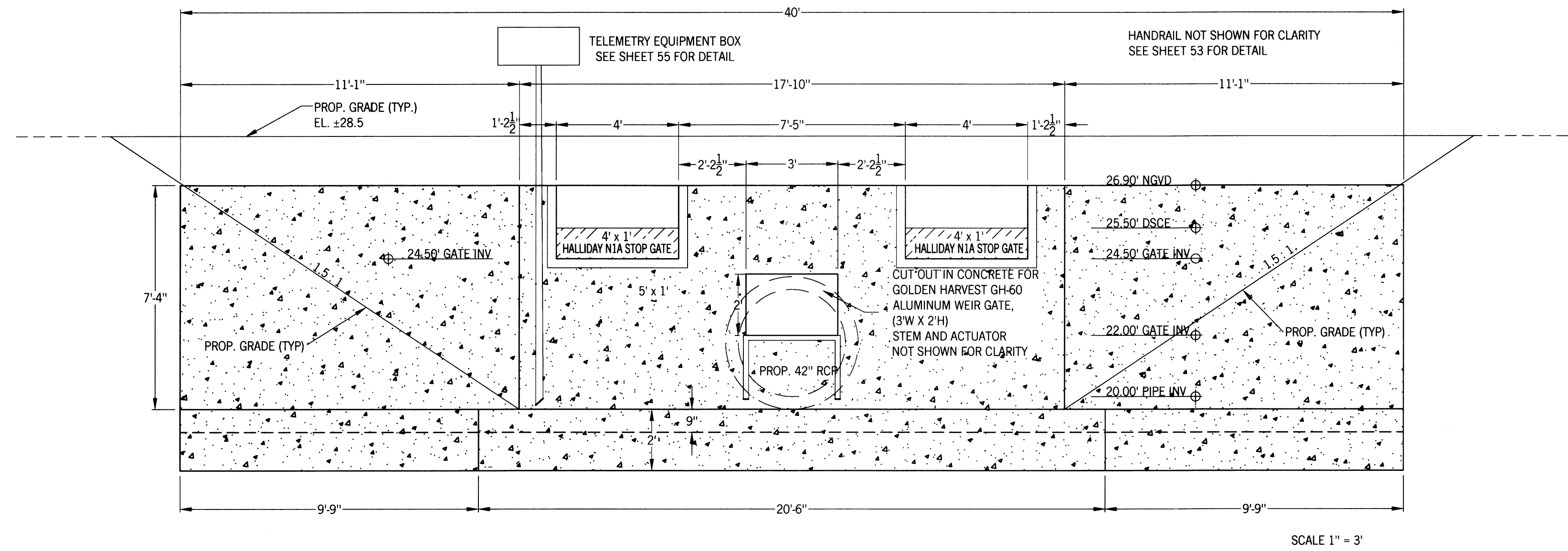
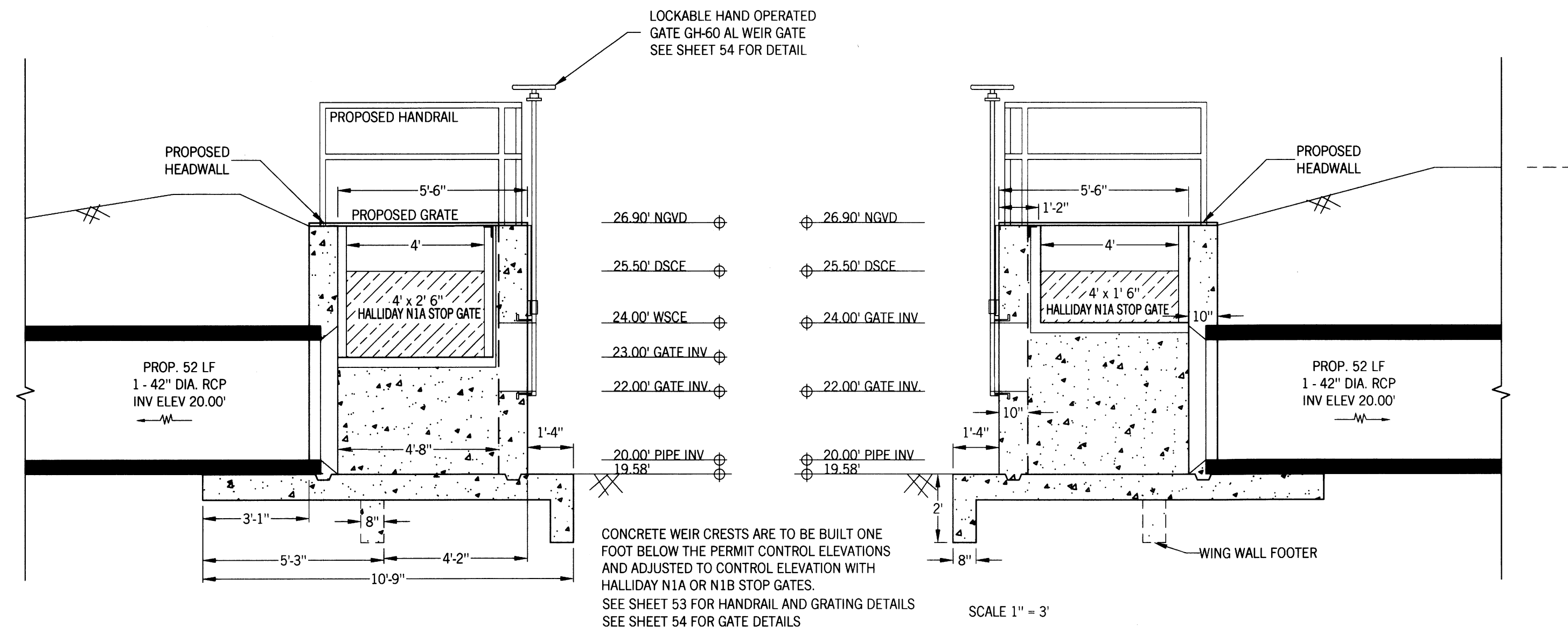
SHEET 25/56
DRAWN BY: RHT
CHECKED BY: RHT
APPROVED BY: RHT
DATE: SEPT 2015

REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)
STRUCTURE 13 AERIAL AND PLAN VIEW
 CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT
 POMPANO CANAL

DATE: Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
 319 Innan Street
 Lehigh Acres, FL 33956
 (239) 369-8900
 Engineering Certificate of Authorization # 25852





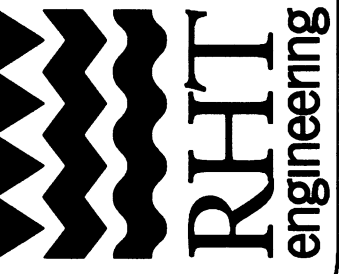
REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 13 FRONT AND SIDE VIEWS

POMPANO CANAL CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

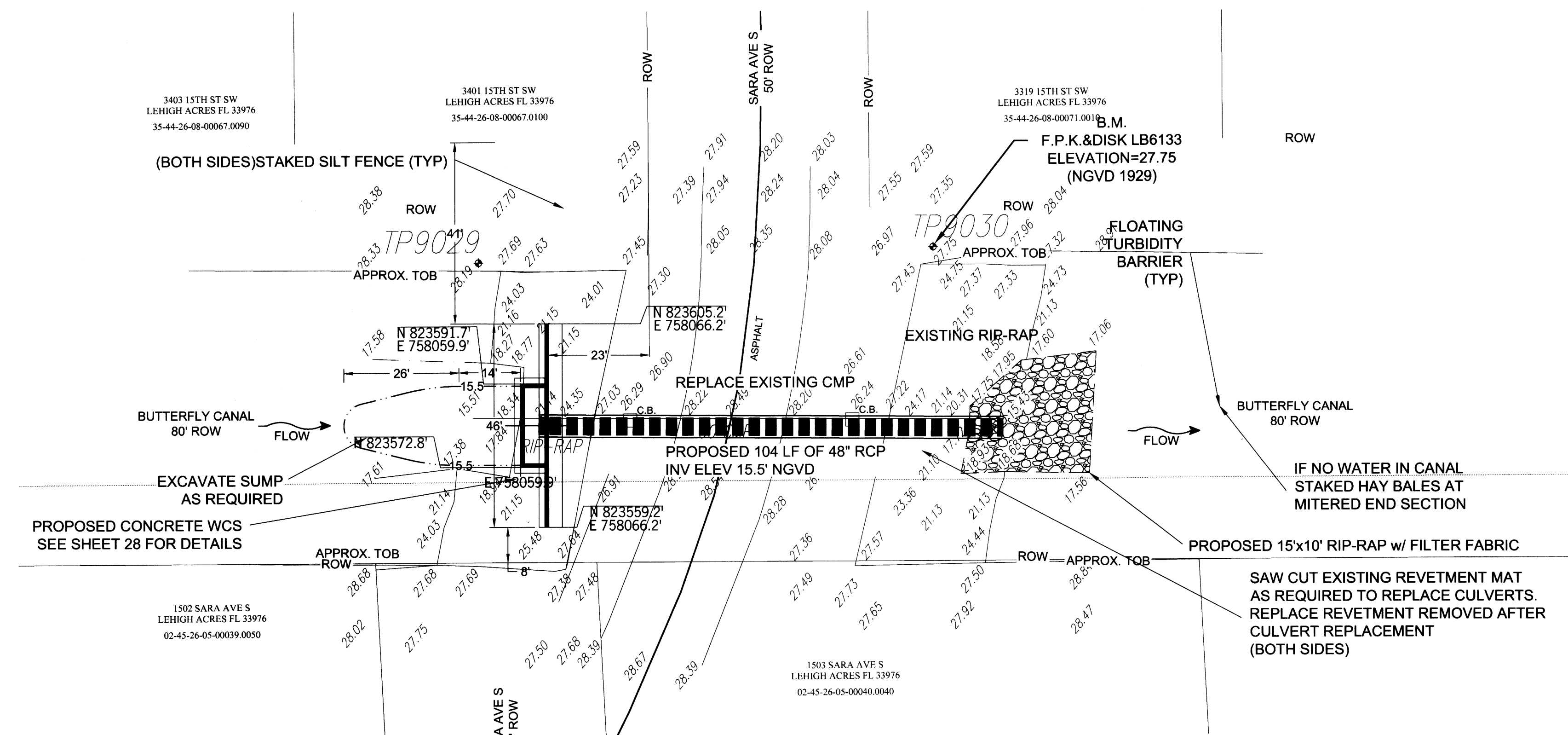
DATE
Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
1317 Innisbee St.
Lehigh, PA 18036
(610) 369-8900
Engineering Certificate of Authorization # 25852



1" = 20'
N



1" = 20'
N



REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 14 AERIAL AND PLAN VIEW

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

DATE: # 46720
Richard H. Thompson, P.E.
R.H.T. Engineering, Inc.
319 Innan Street
Lehigh Acres, FL 33956
(239) 369-8900
Engineering Certificate of Authorization # 25852



REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

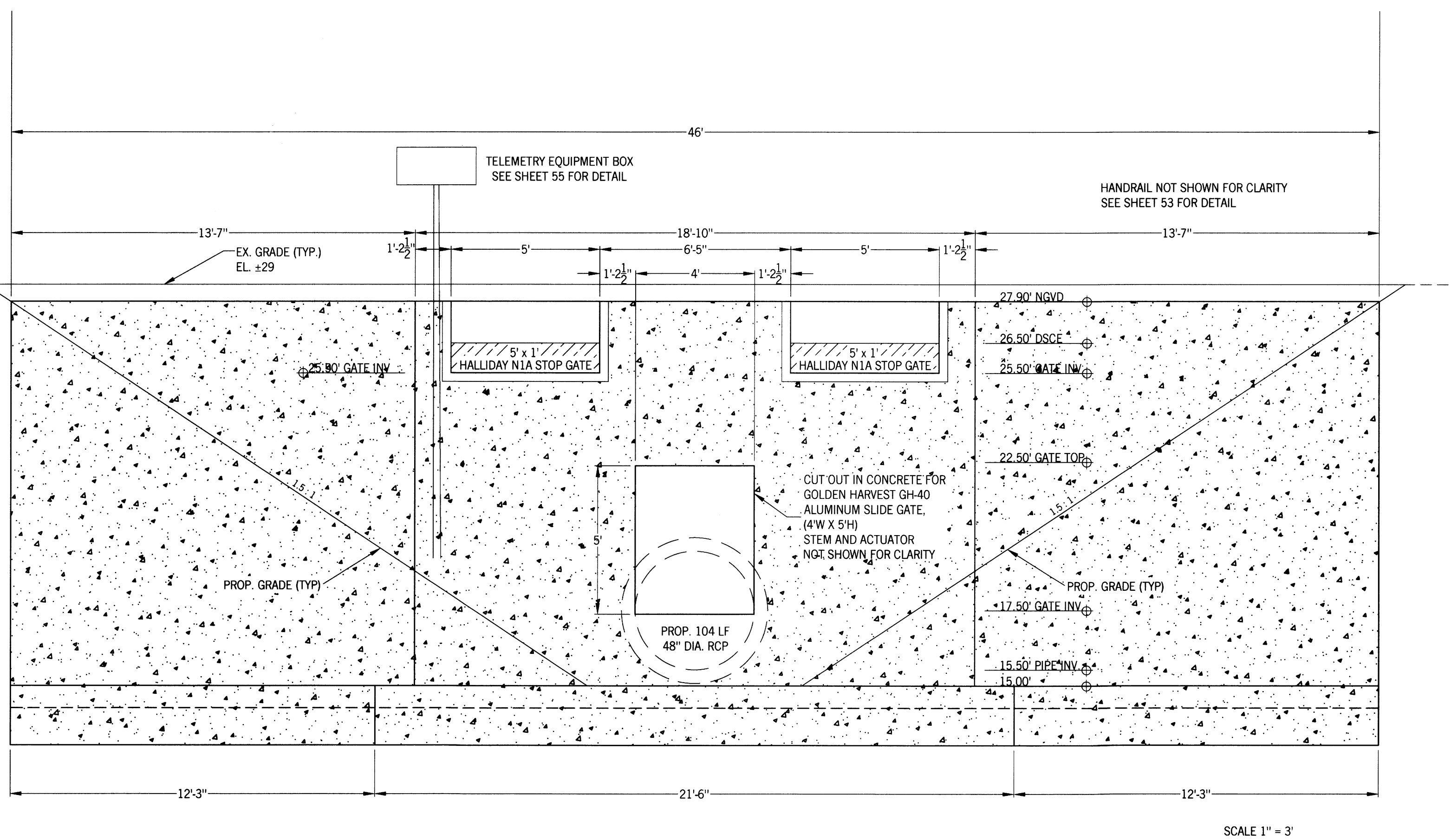
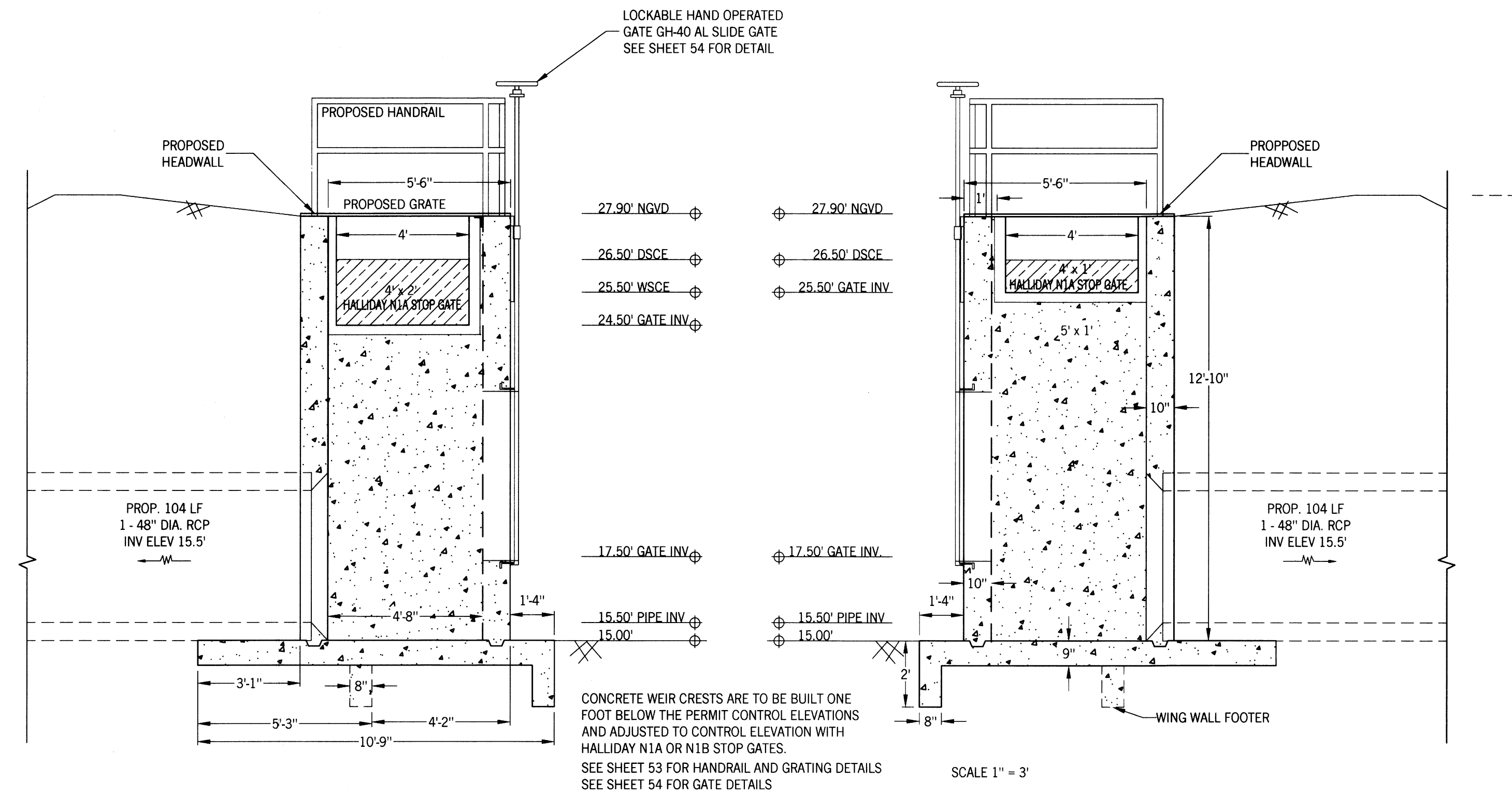
STRUCTURE 14 FRONT AND SIDE VIEWS

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

BUTTERFLY CANAL

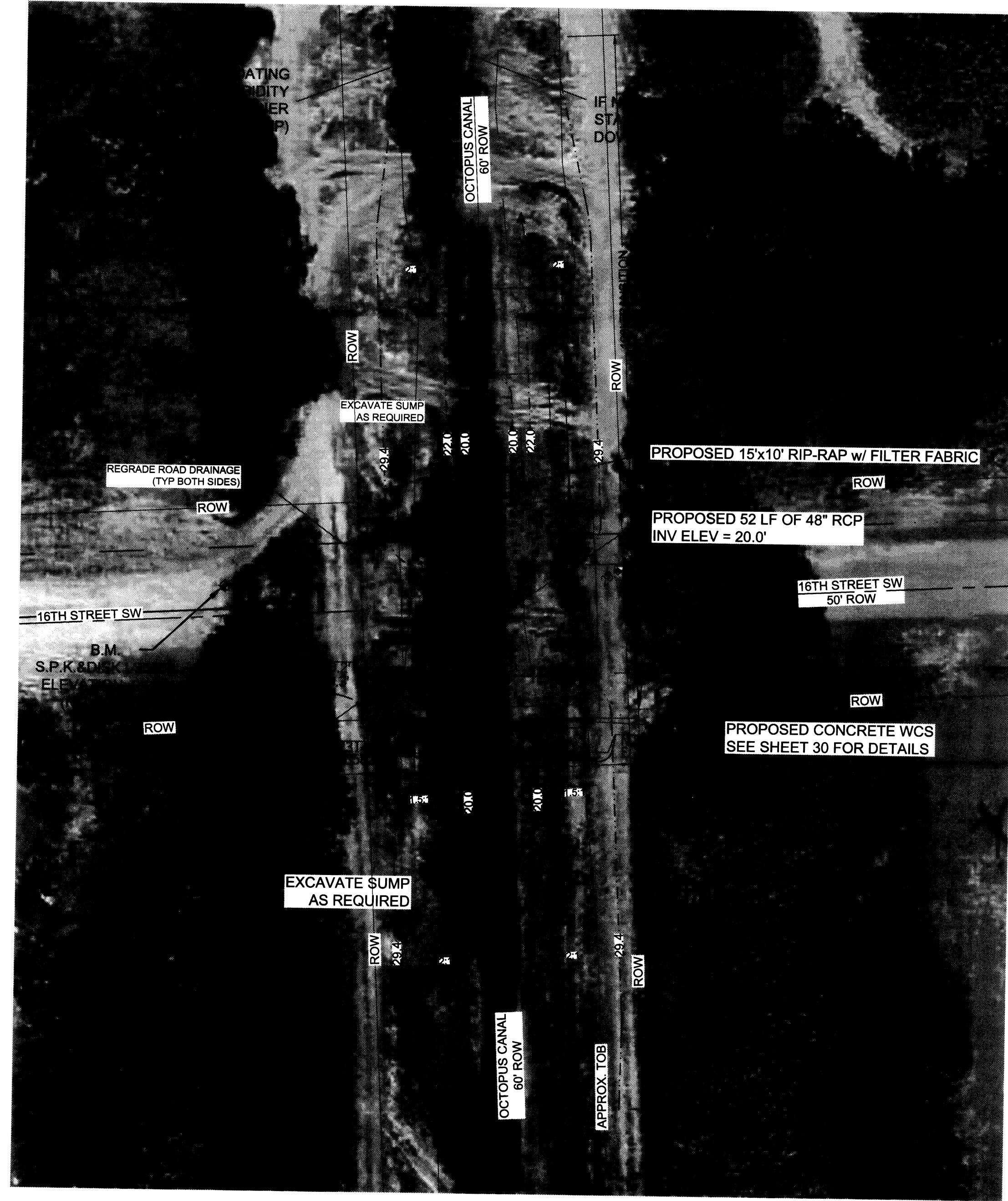
DATE:
Richard H. Thompson, P.E. # 46720

R.H.T. Engineering, Inc.
319 Inman Street
Lehigh Acres, FL 33936
(239) 569-8900
Engineering Certificate of Authorization
25852

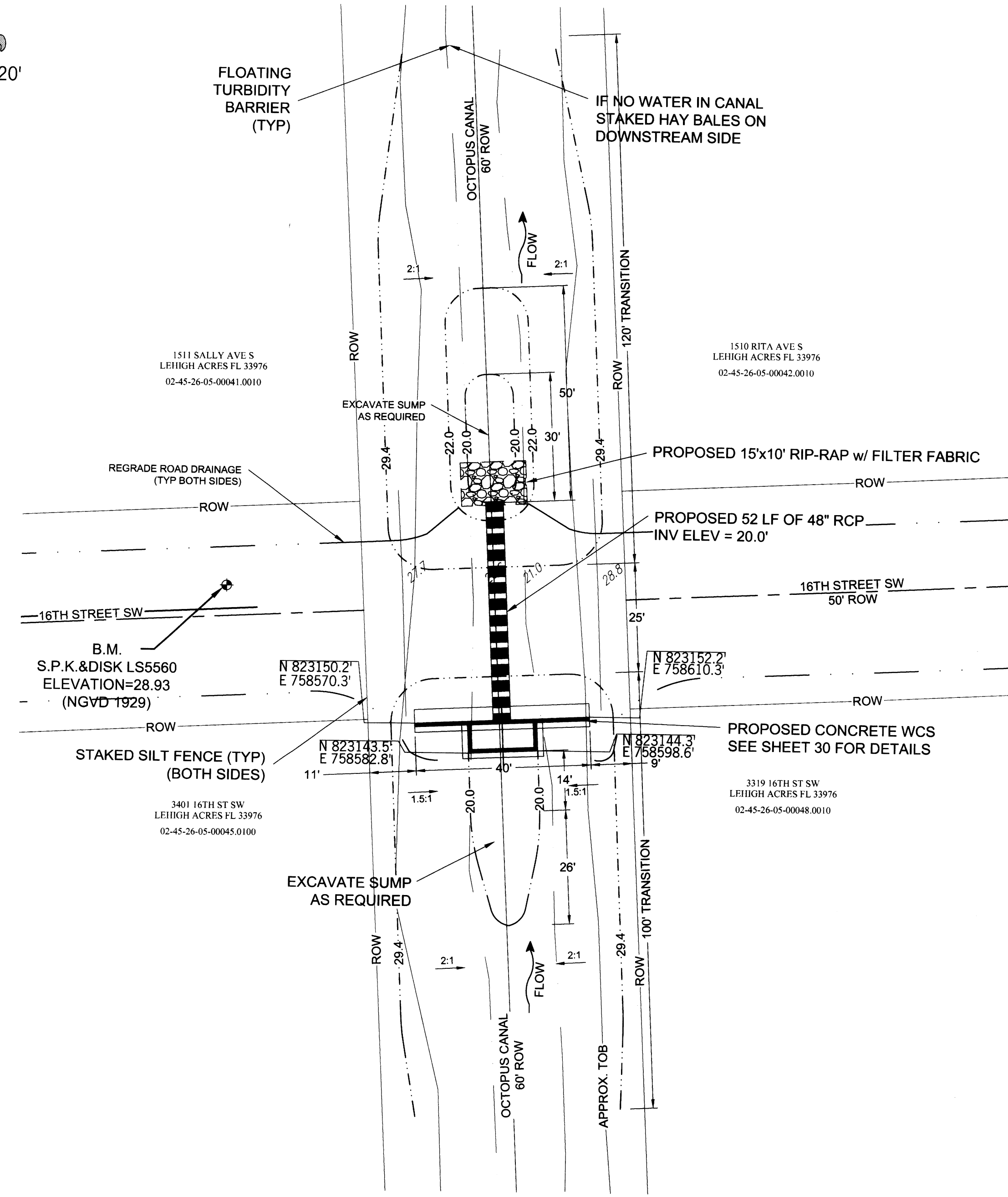


SCALE 1" = 3'

1" = 20'
N



1" = 20'
N



SHEET 29/56

DRAWN BY:	RHT
CHECKED BY:	RHT
APPROVED BY:	RHT
DATE:	SEPT 2015

REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 15 AERIAL AND PLAN VIEW

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

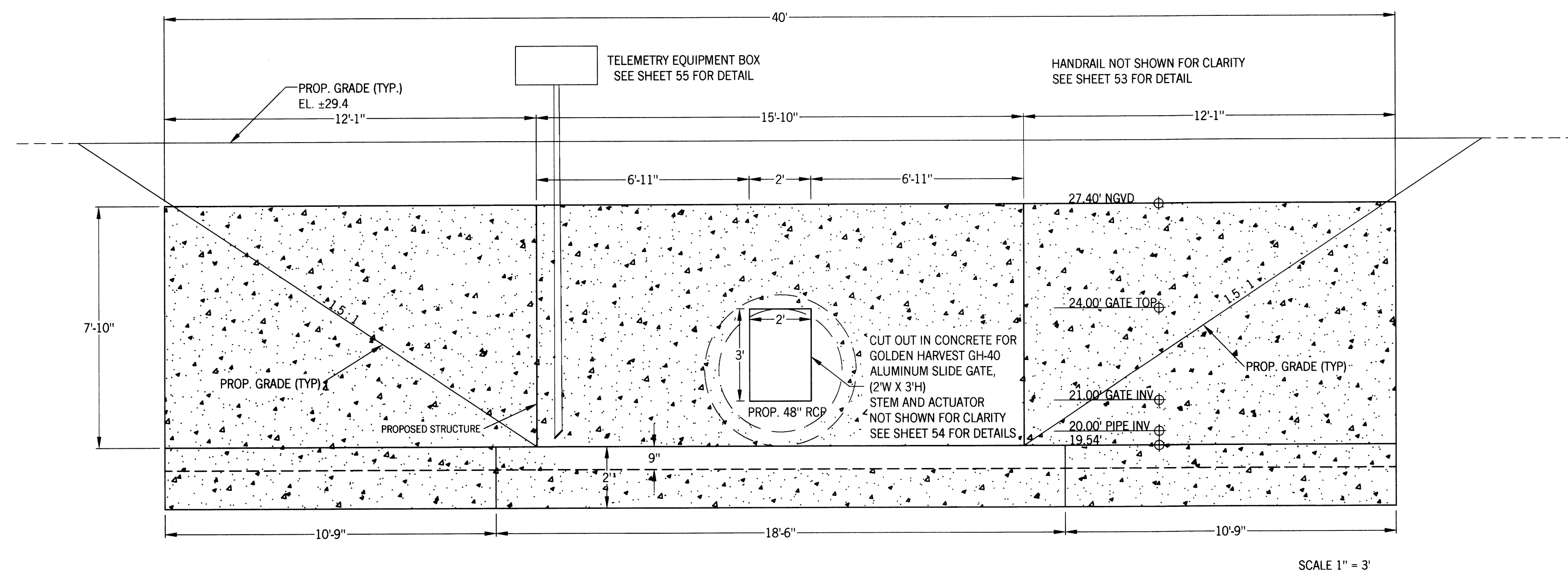
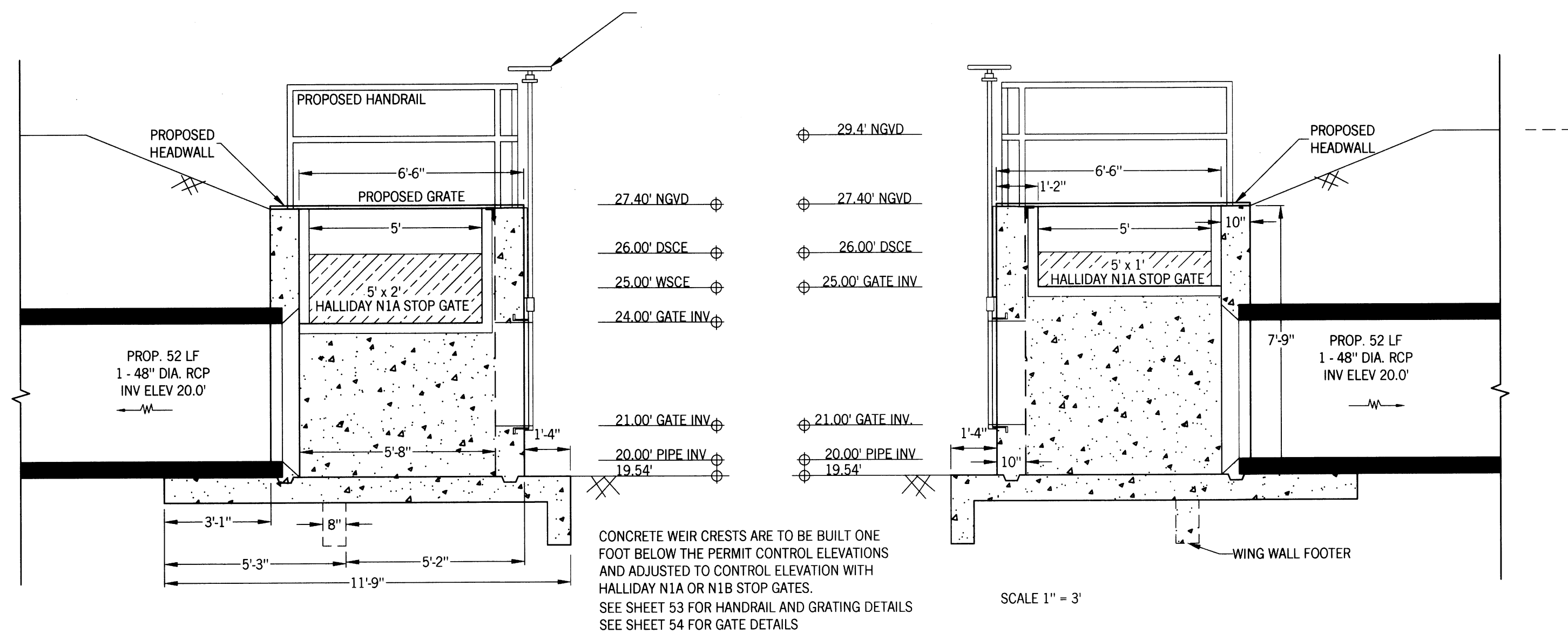
OCTOPIUS CANAL

DATE: Richard H. Thompson, P.E. # 46720

R.H.T. Engineering, Inc.
 319 Inman Street
 Lehigh Acres, FL 33956
 (239) 369-8900
 Engineering Certificate of Authorization # 25852



REVISIONS



SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 15 FRONT AND SIDE VIEWS

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

OCTOPUS CANAL

DATE: Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
319 Innan Street
Lehigh Acres, FL 33956
(239) 369-8900
Engineering Certificate of Authorization # 25852



REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 16 AERIAL AND PLAN VIEW

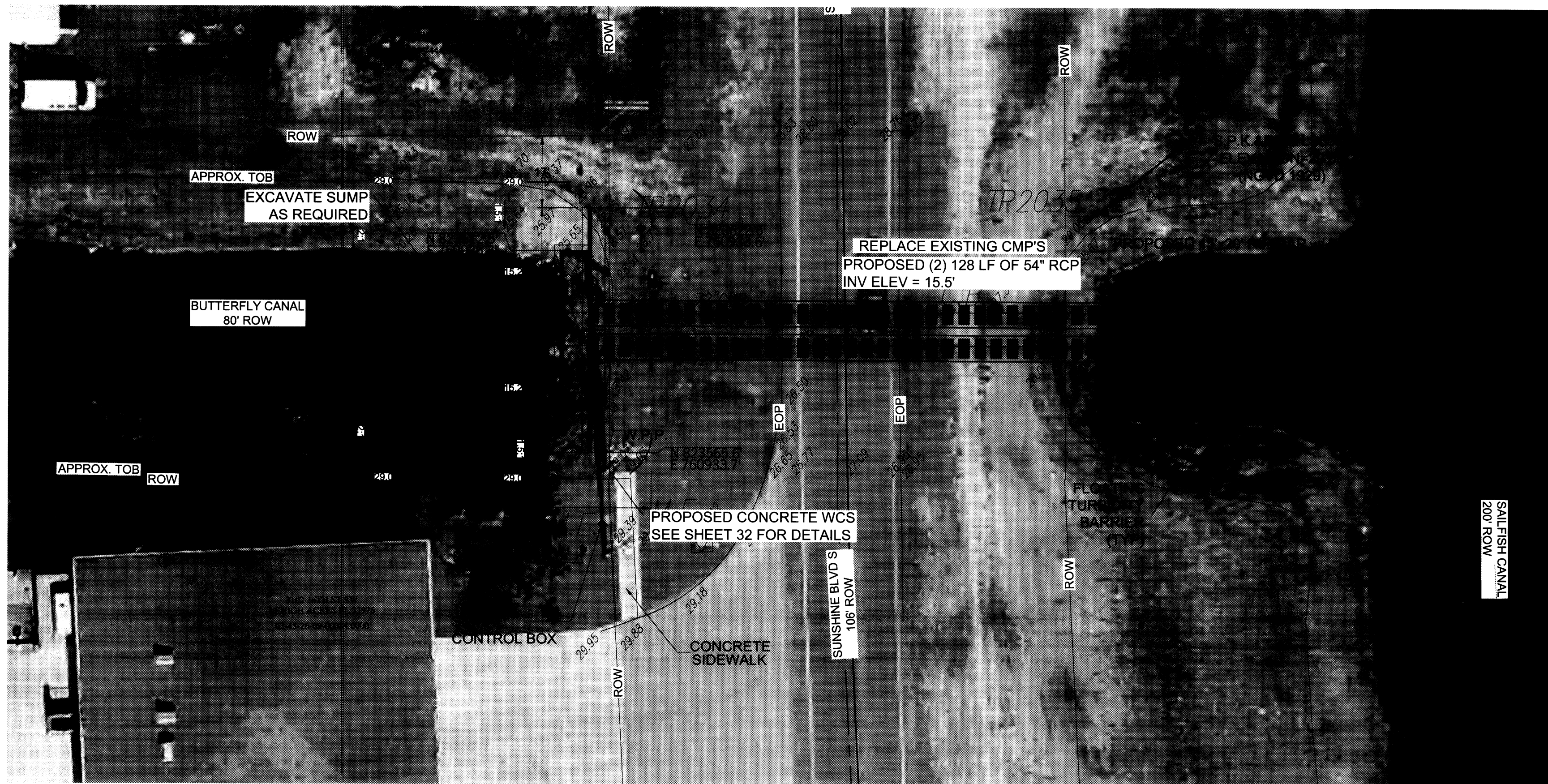
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

BUTTERFLY CANAL

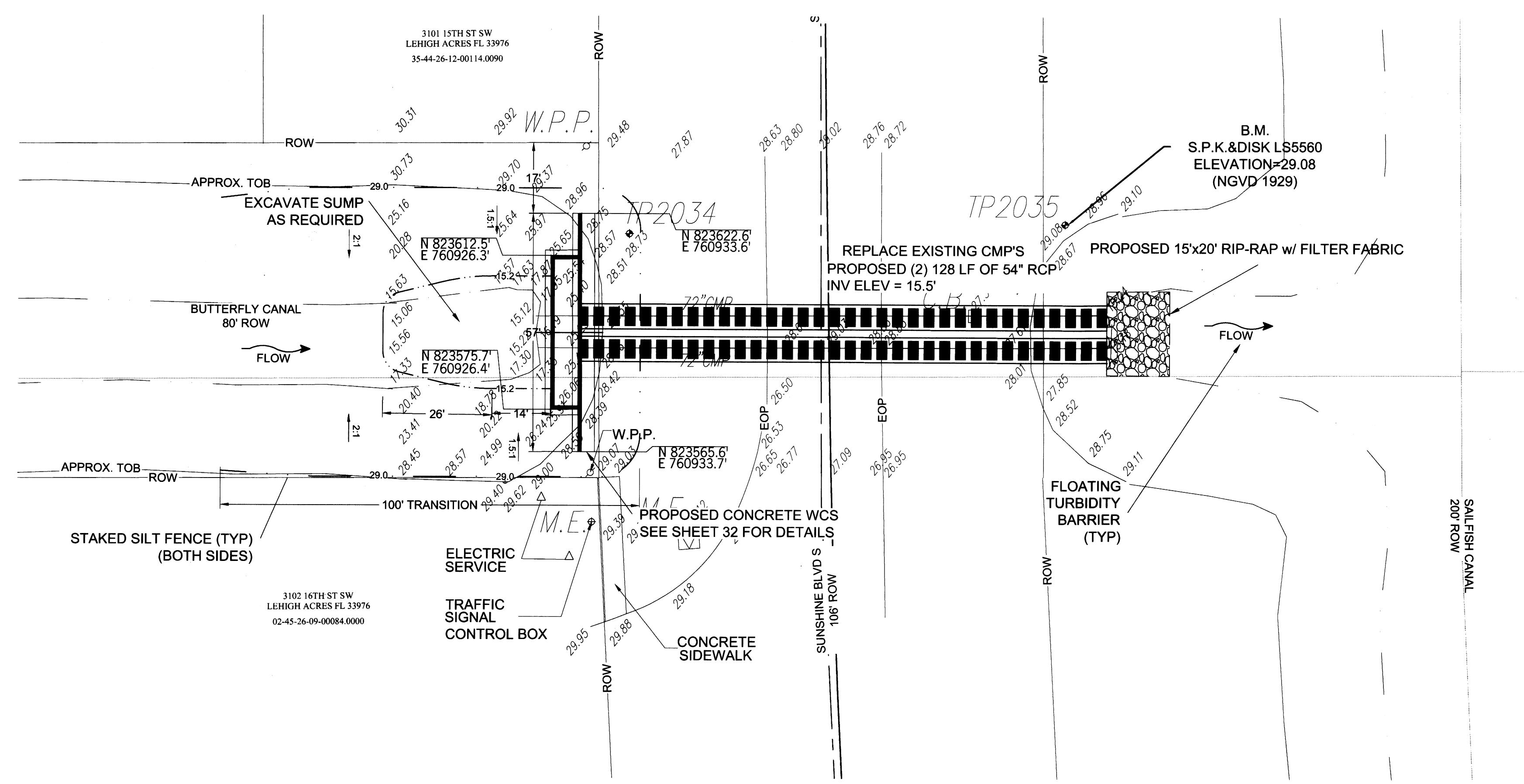
DATE: Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
 319 Inman Street
 Lehigh Acres, FL 33956
 (239) 369-8900
 Engineering Certificate of Authorization # 25852



N
1" = 20'

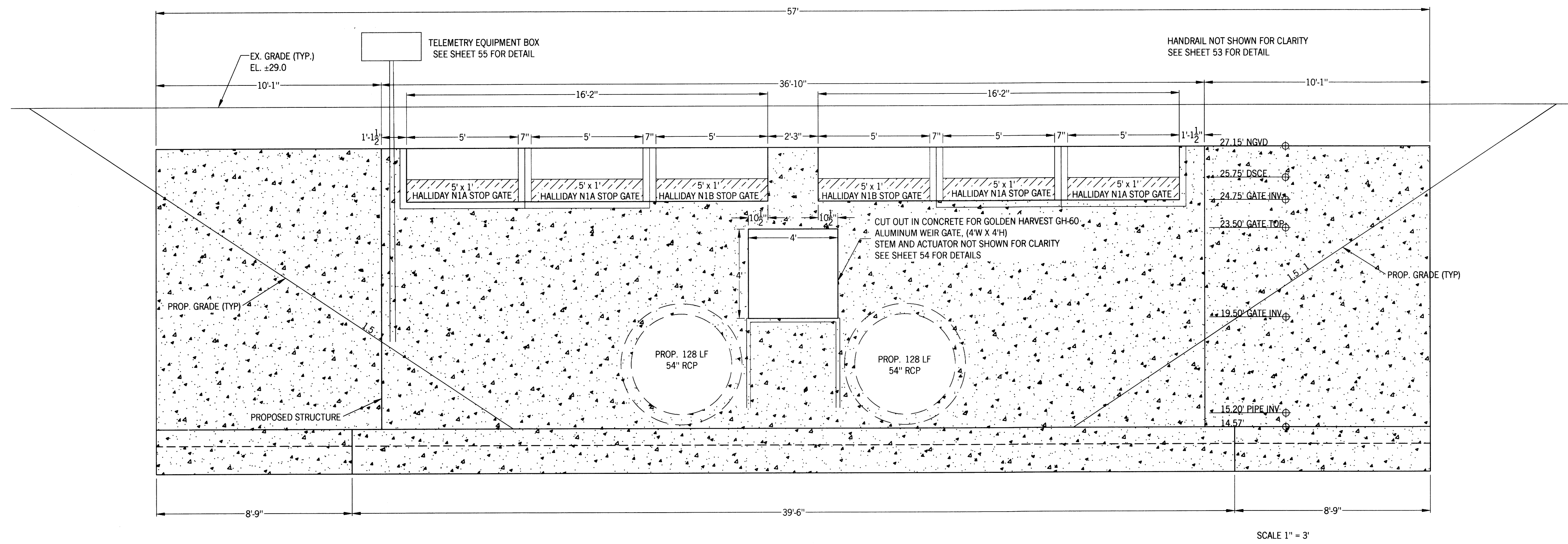
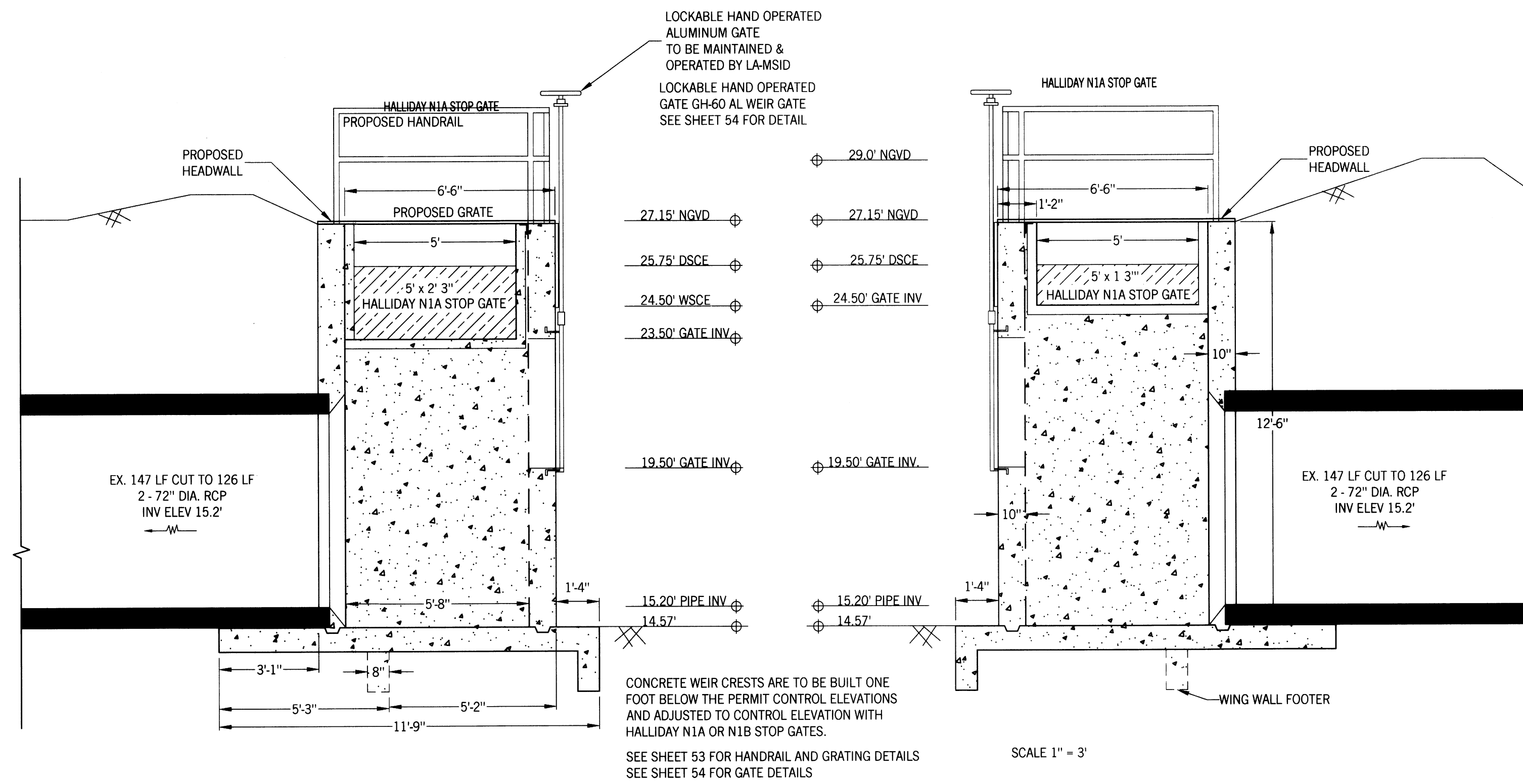


N
1" = 20'



DRAWN BY: RHT
CHECKED BY: RHT
APPROVED BY: RHT
DATE: SEPT 2015

REVISIONS	



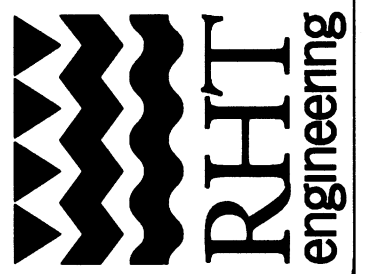
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 16 FRONT AND SIDE VIEWS

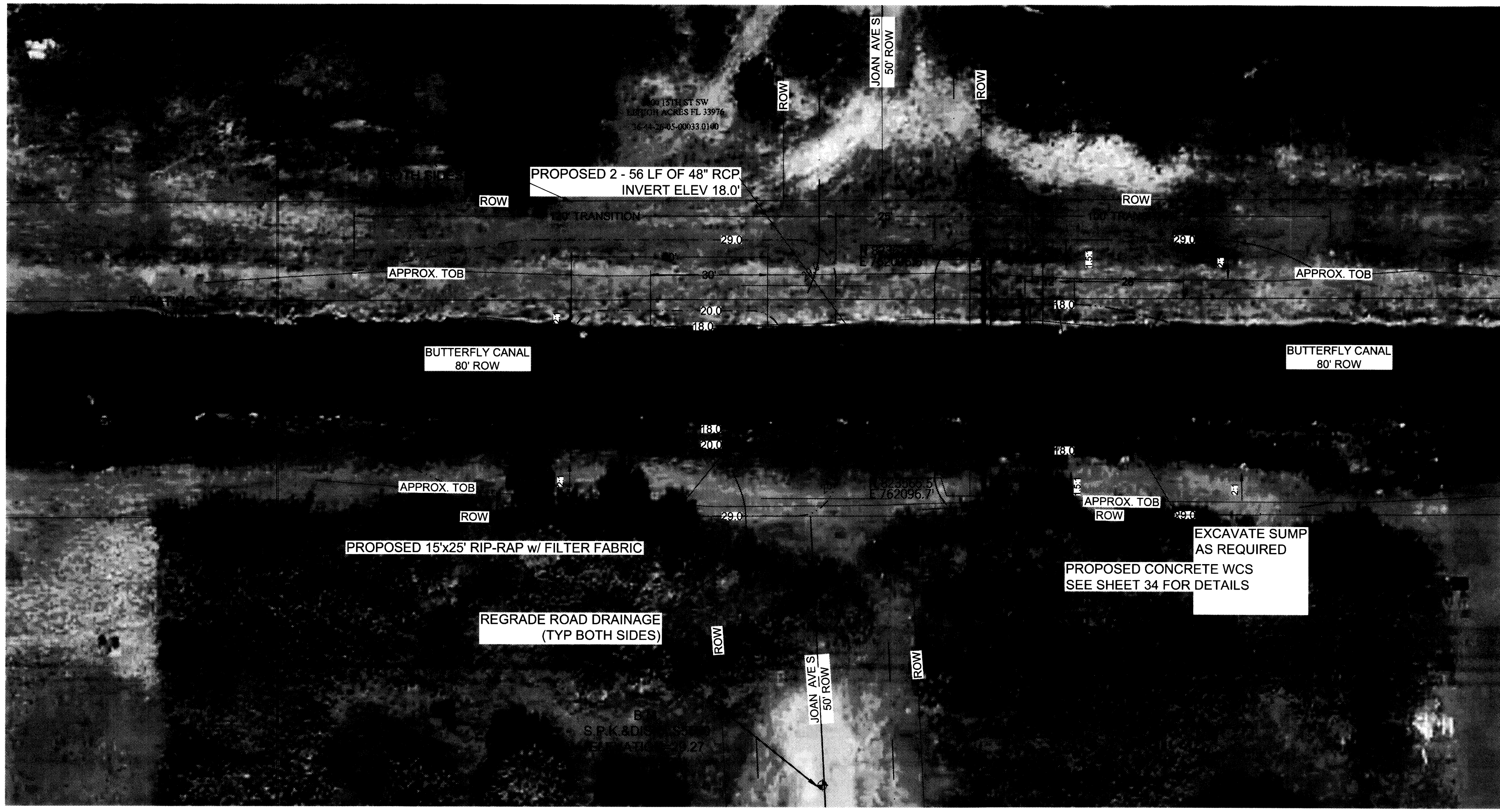
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

BUTTERFLY CANAL

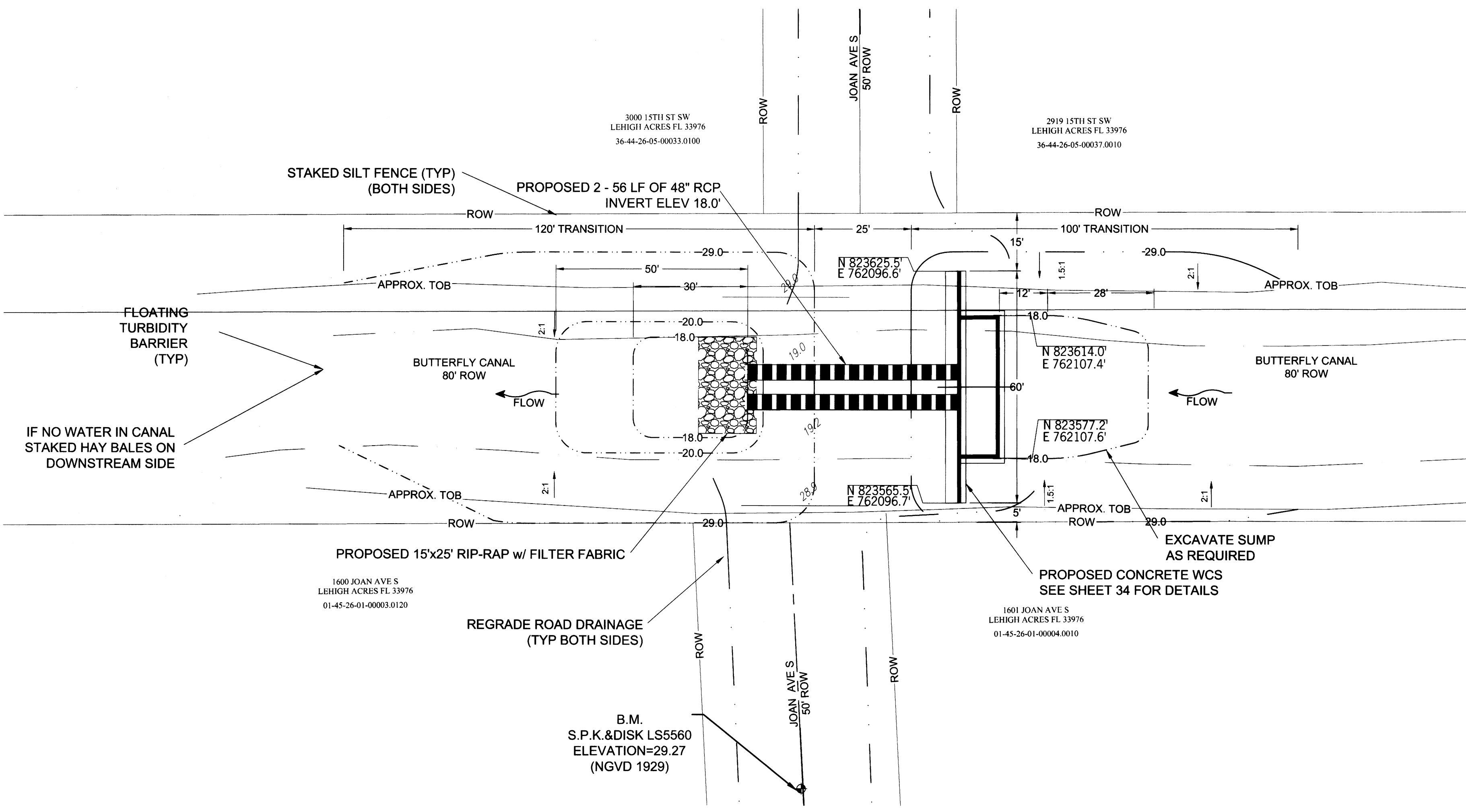
DATE: Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
 319 Inman Street
 Lehigh Acres, FL 33936
 (239) 369-8900
 Engineering Certificate of Authorization # 25852



1" = 20'
N



1" = 20'
N



SHEET 33/56
DRAWN BY: RHT
CHECKED BY: RHT
APPROVED BY: RHT
DATE: SEPT 2015

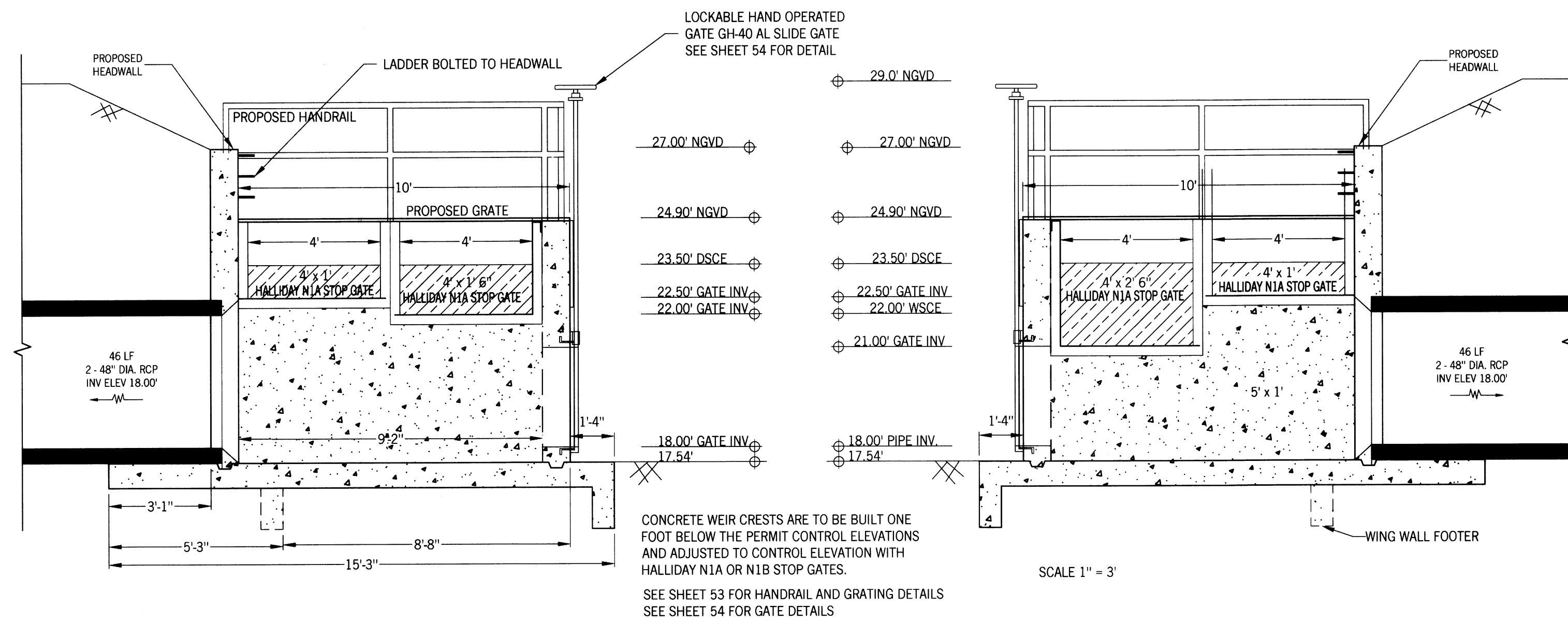
REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)
STRUCTURE 17 AERIAL AND PLAN VIEW
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT
BUTTERFLY CANAL

DATE: Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
319 Inman Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization # 25852

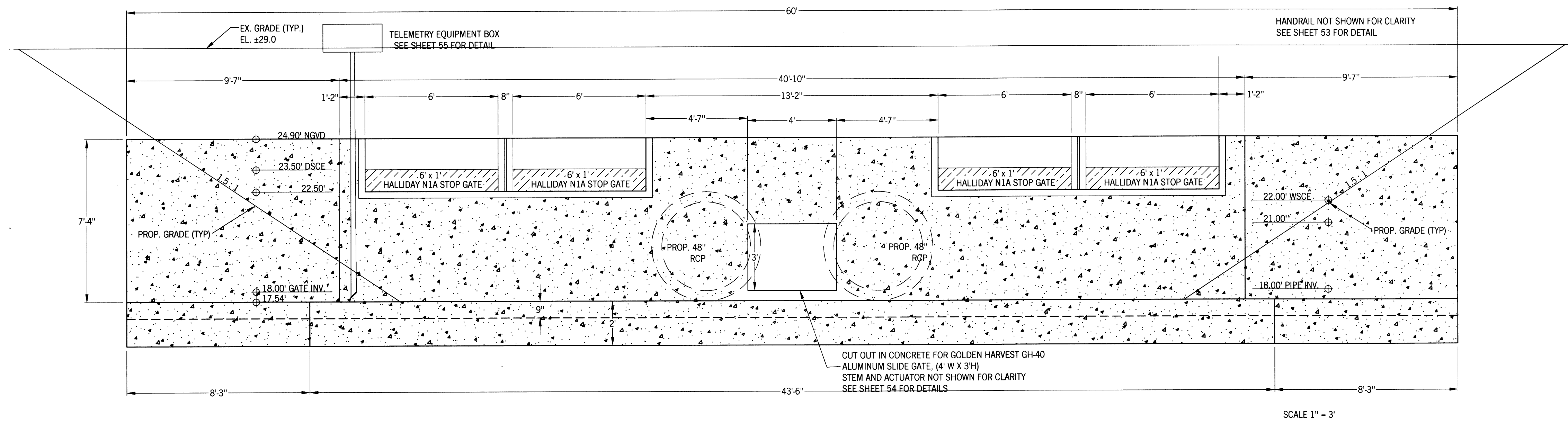


DRAWN BY:
RHT
CHECKED BY:
RHT
APPROVED BY:
RHT
DATE:
SEPT 2015



CONCRETE WEIR CRESTS ARE TO BE BUILT ONE FOOT BELOW THE PERMIT CONTROL ELEVATIONS AND ADJUSTED TO CONTROL ELEVATION WITH HALLIDAY N1A OR N1B STOP GATES.
SEE SHEET 53 FOR HANDRAIL AND GRATING DETAILS
SEE SHEET 54 FOR GATE DETAILS

SCALE 1" = 3'



CUT IN IN CONCRETE FOR GOLDEN HARVEST GH-40 ALUMINUM SLIDE GATE, (4' W X 3'H) STEM AND ACTUATOR NOT SHOWN FOR CLARITY SEE SHEET 54 FOR DETAILS

SCALE 1" = 3'

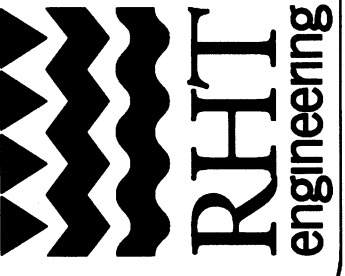
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 17 FRONT AND SIDE VIEWS

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

BUTTERFLY CANAL

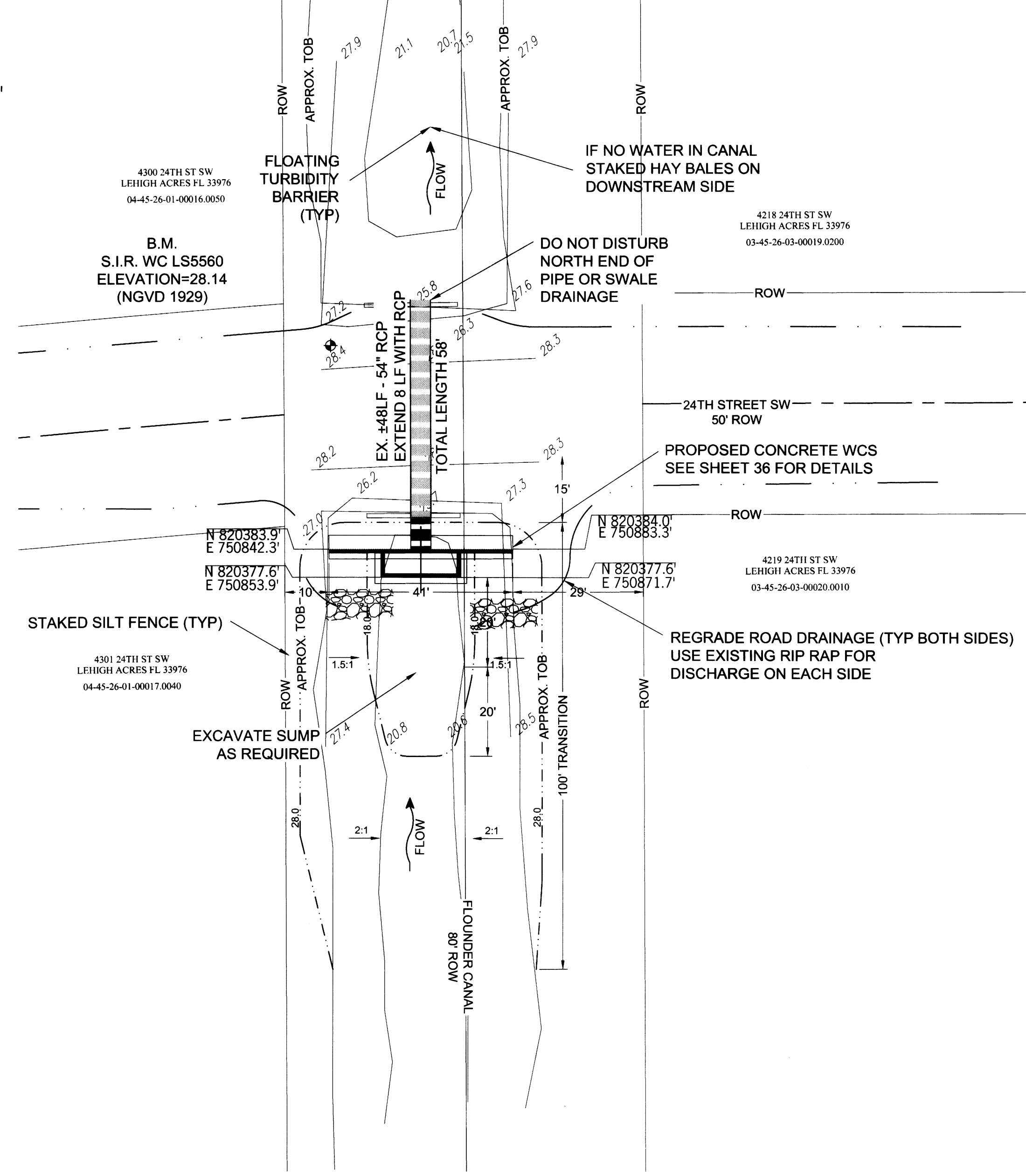
DATE: # 46720
Richard H. Thompson, P.E.
R.H.T. Engineering, Inc.
319 Innan Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization # 25852



1" = 20'
N



1" = 20'
N



REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 18 AERIAL AND PLAN VIEW

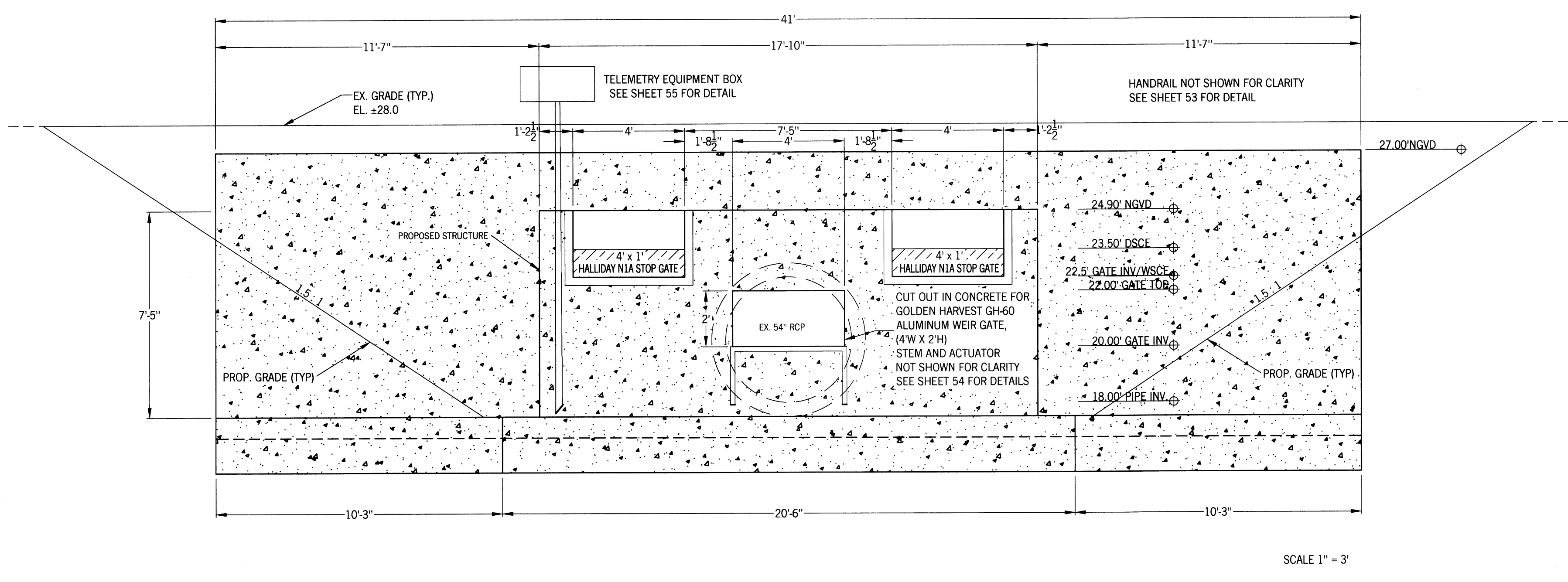
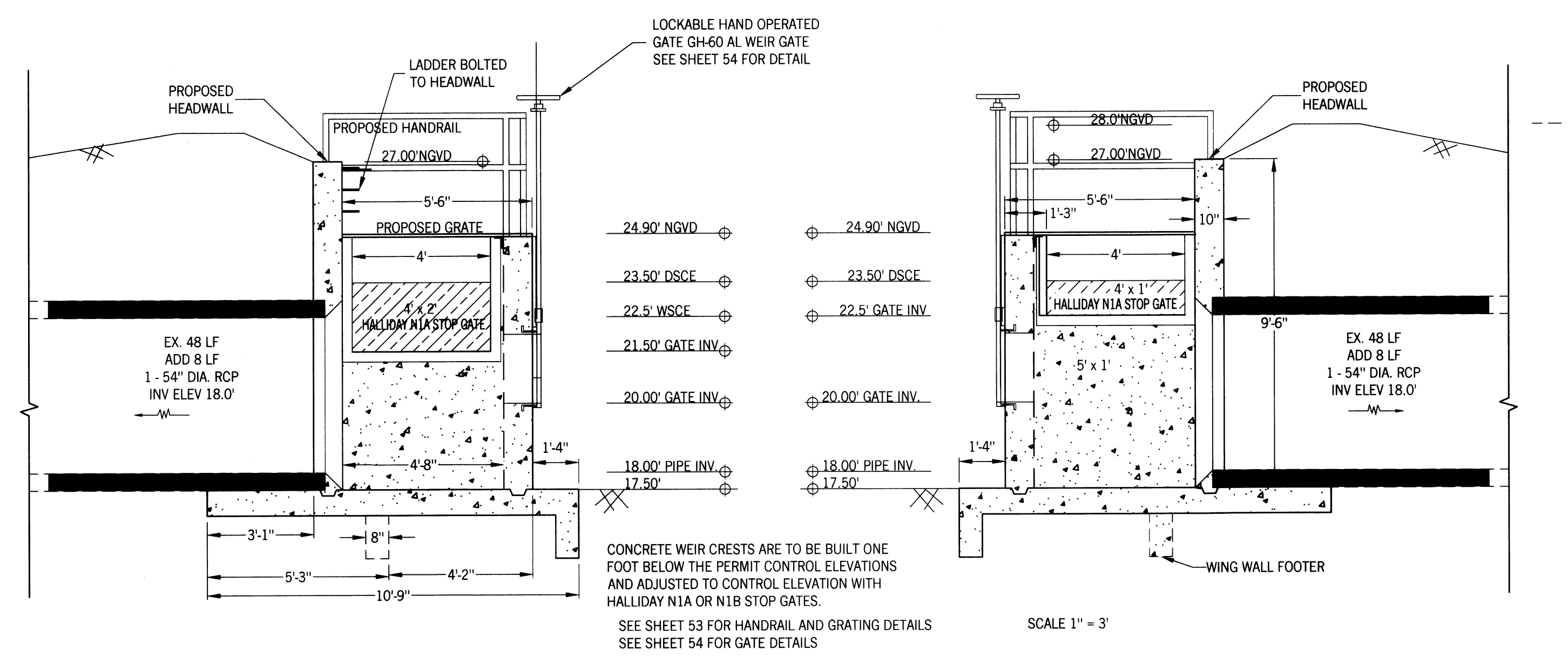
FLOUNDER CANAL

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

DATE: Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
319 Inman Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization
25852



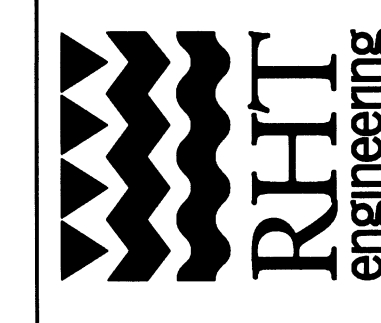
DRAWN BY:
RHT
CHECKED BY:
RHT
APPROVED BY:
RHT
DATE:
SEPT 2015



NO.	REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)
STRUCTURE 18 FRONT AND SIDE VIEWS
 CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT
 FLOUNDER CANAL

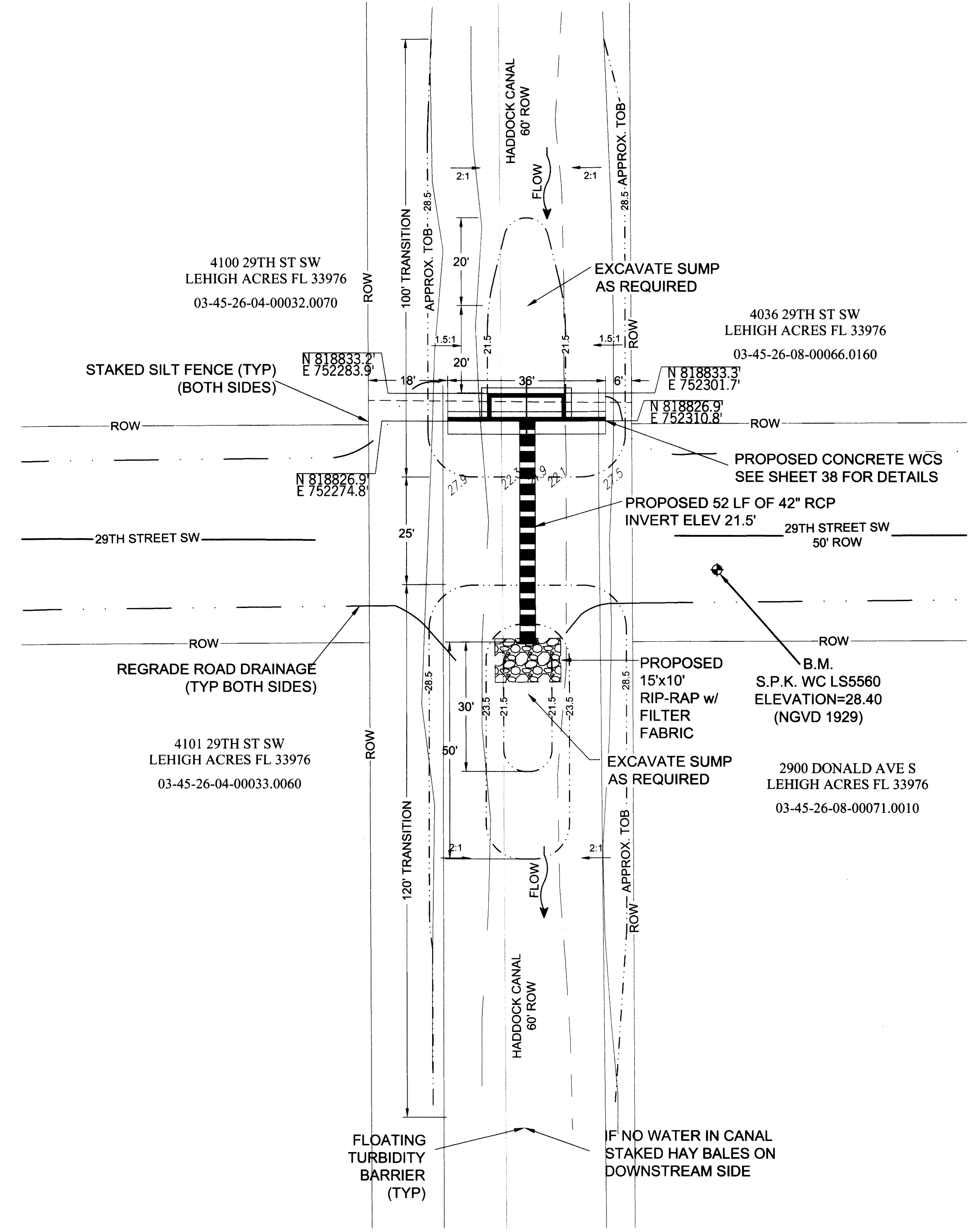
DATE: Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
 319 Innan Street
 Lehigh Acres, FL 33956
 (239) 369-8900
 Engineering Certificate of Authorization # 28852



1" = 20'
N



1" = 20'
N



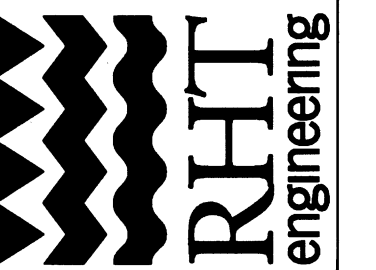
REVISIONS

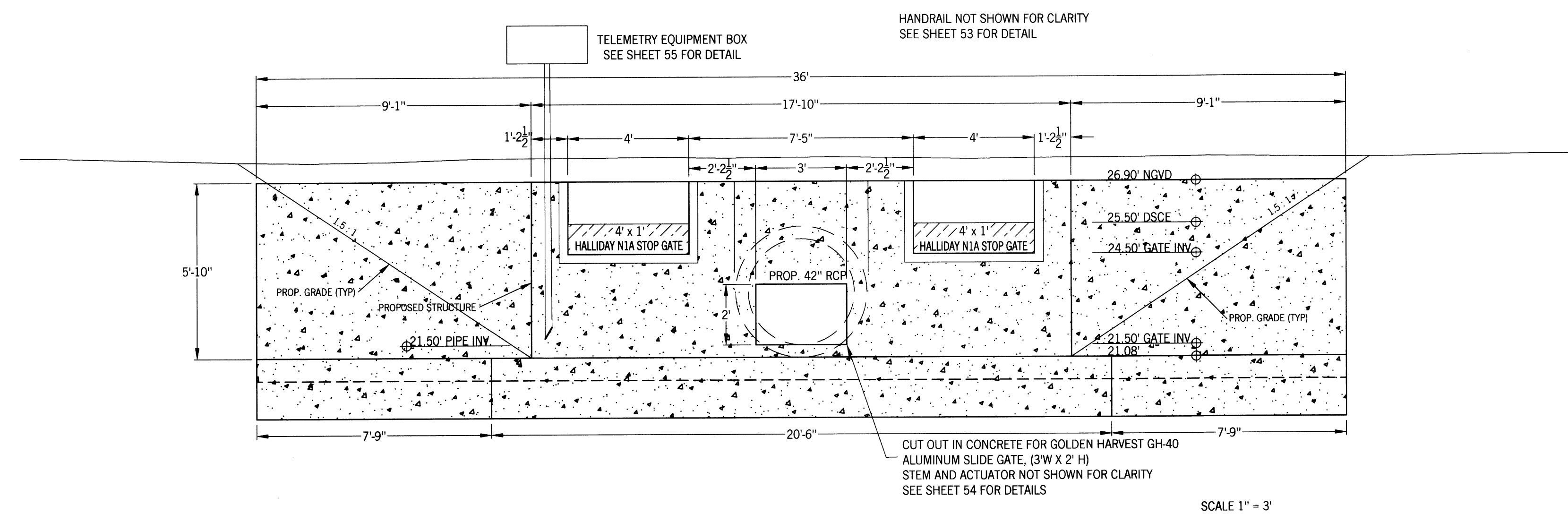
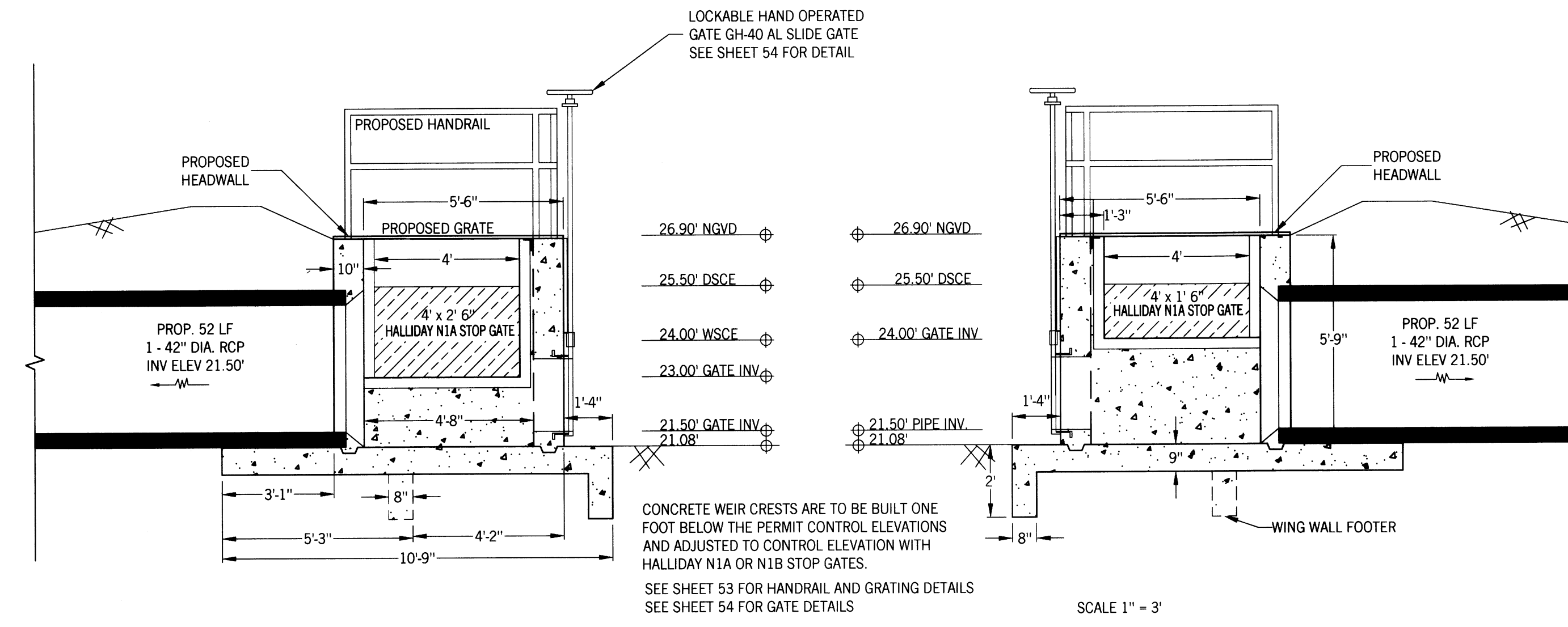
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 19 AERIAL AND PLAN VIEW

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

DATE:
Richard H. Thompson, P.E., # 46720
R.H.T. Engineering, Inc.
319 Innana Street
Lehigh Acres, FL 33936
(251) 369-8900
Engineering Certificate of Authorization
25852





SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 19 FRONT AND SIDE VIEWS

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

HADDOCK CANAL

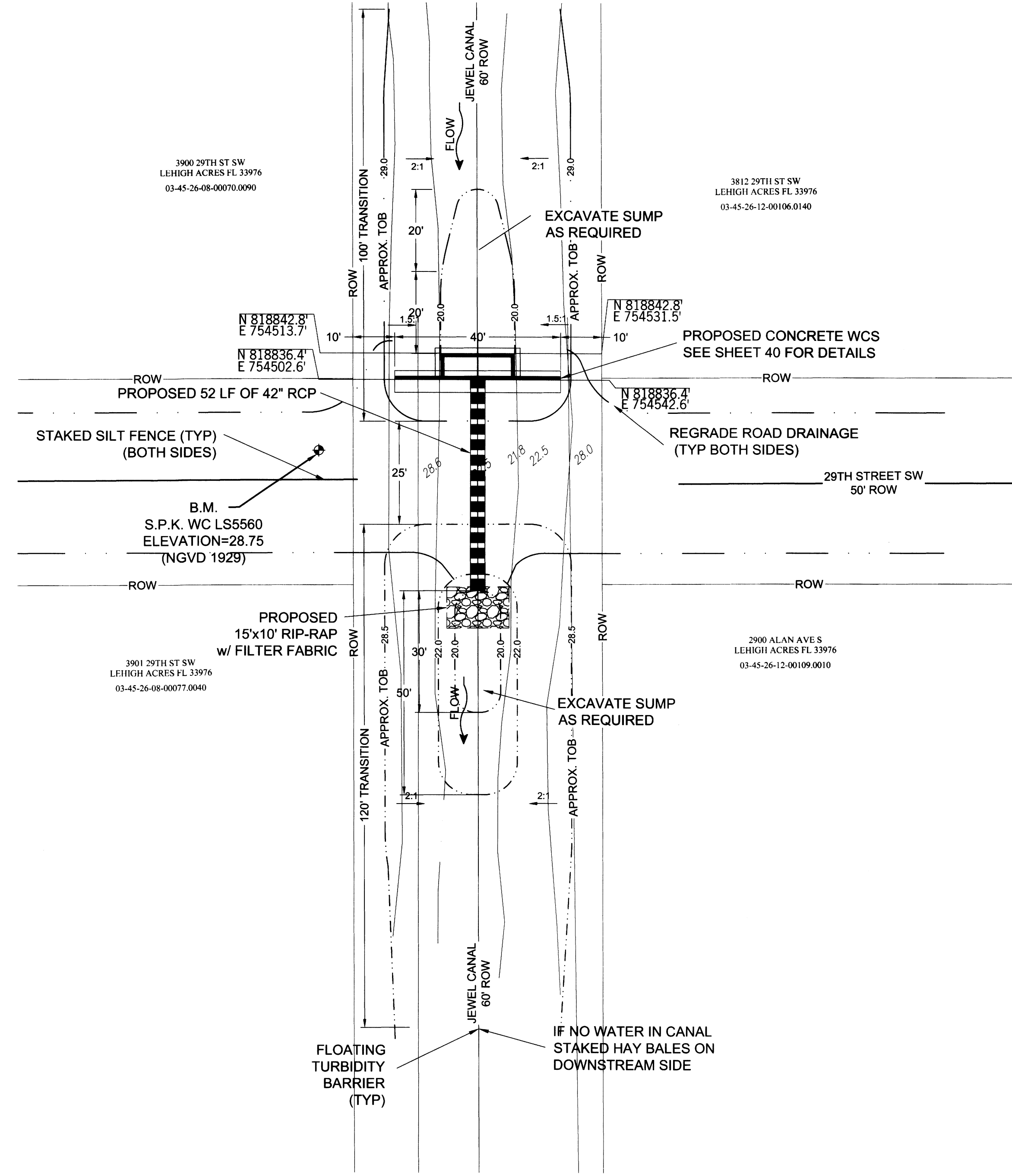
DATE: 4/7/20
Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
319 Jernan Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization
25852



1" = 20'
N



1" = 20'
N



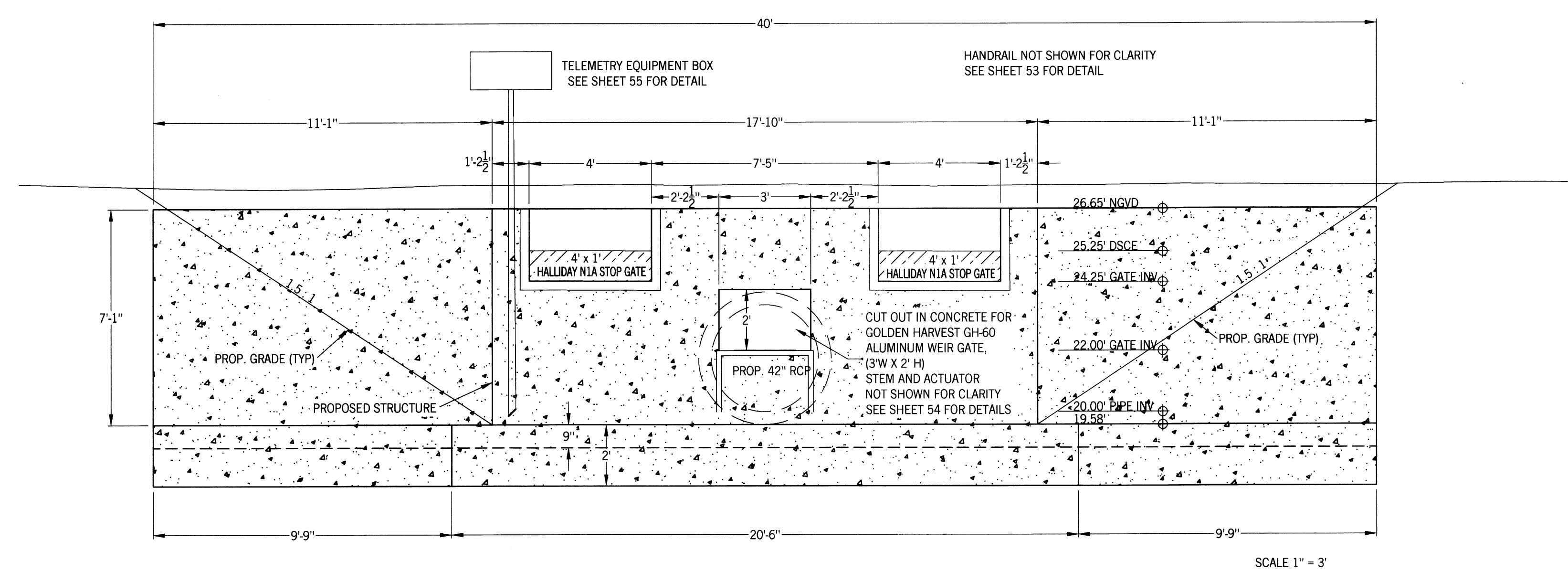
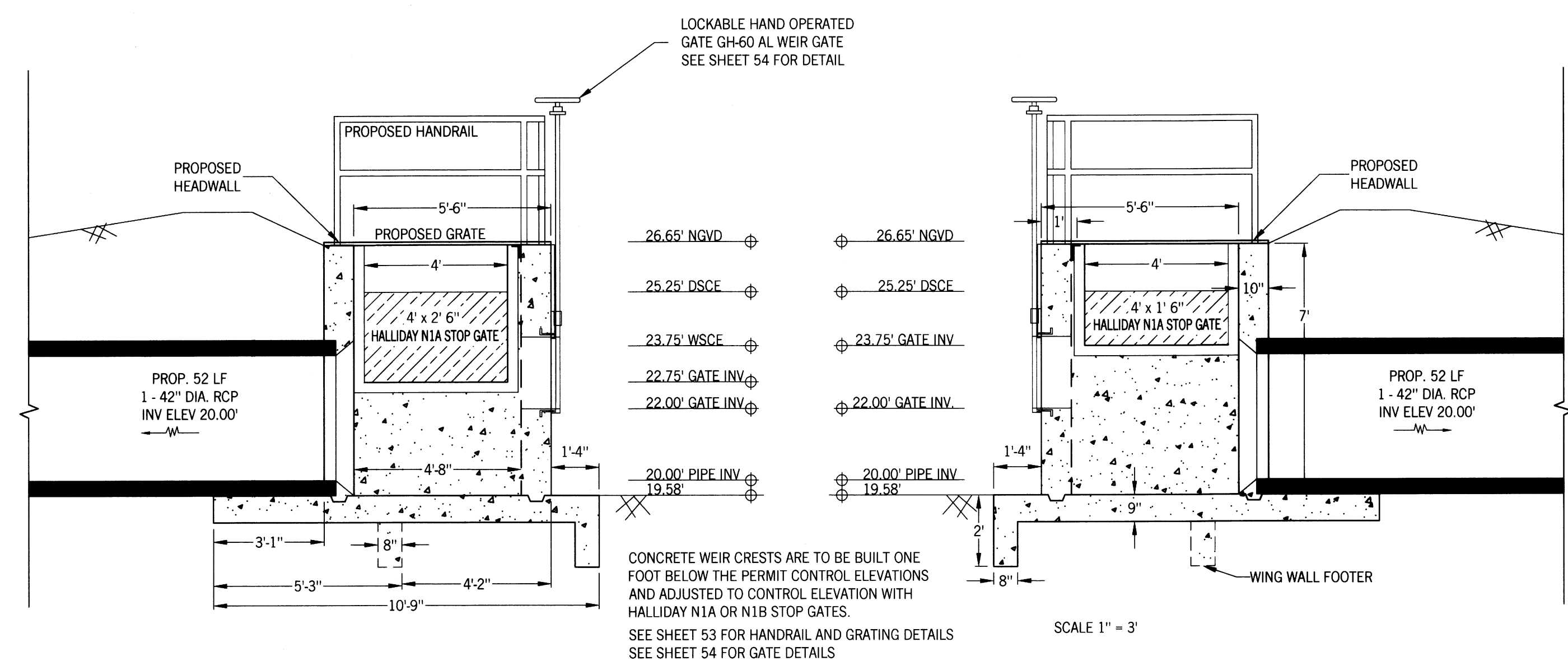
SHEET 39/56
DRAWN BY: RHT
CHECKED BY: RHT
APPROVED BY: RHT
DATE: SEPT 2015

NO.	REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)
STRUCTURE 20 AERIAL AND PLAN VIEW
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT
JEWEL CANAL

DATE: Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
319 Innan Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization # 25852





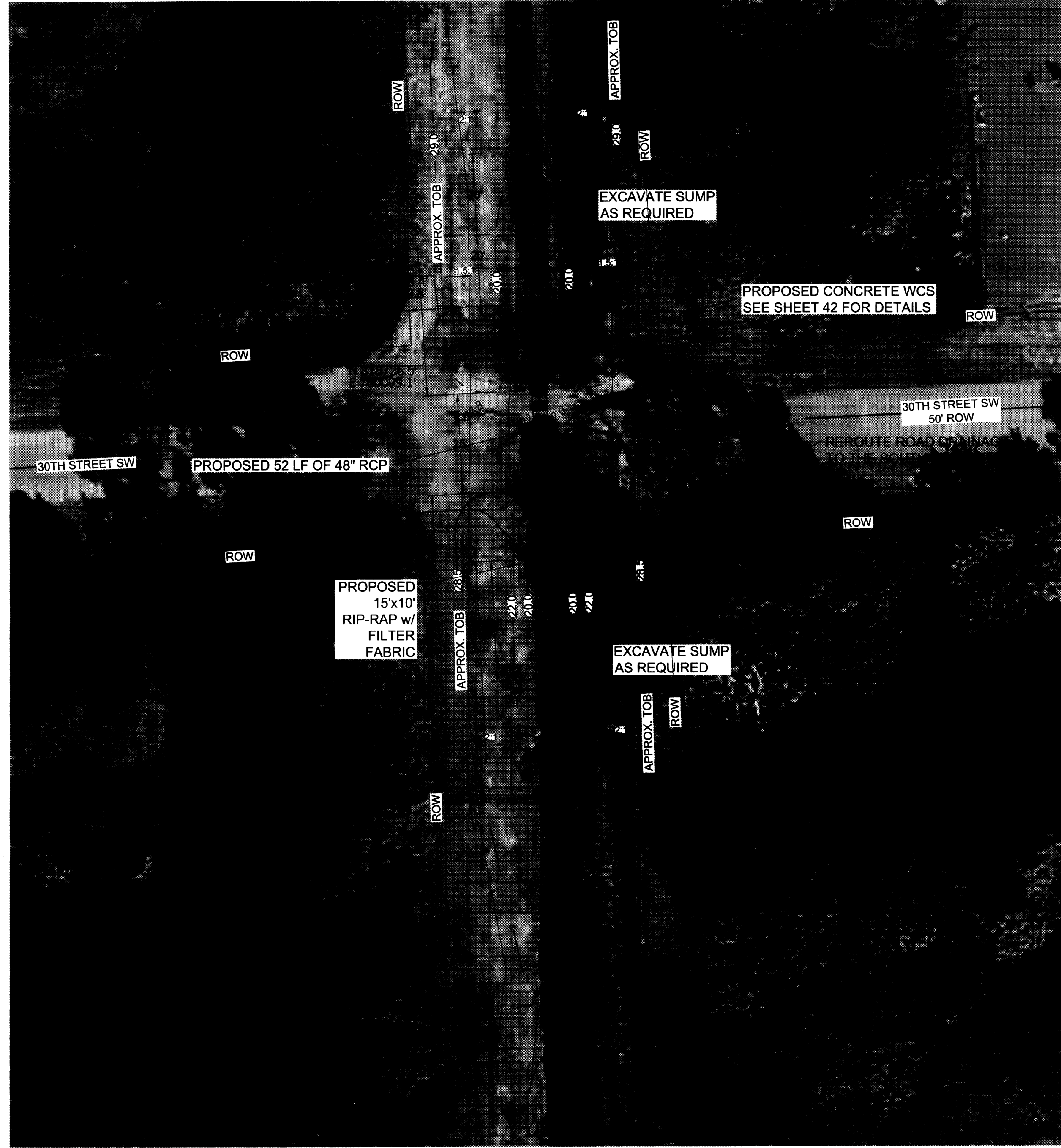
NO.	DESCRIPTION

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)
 STRUCTURE 20 FRONT AND SIDE VIEWS
 CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT
 JEWEL CANAL

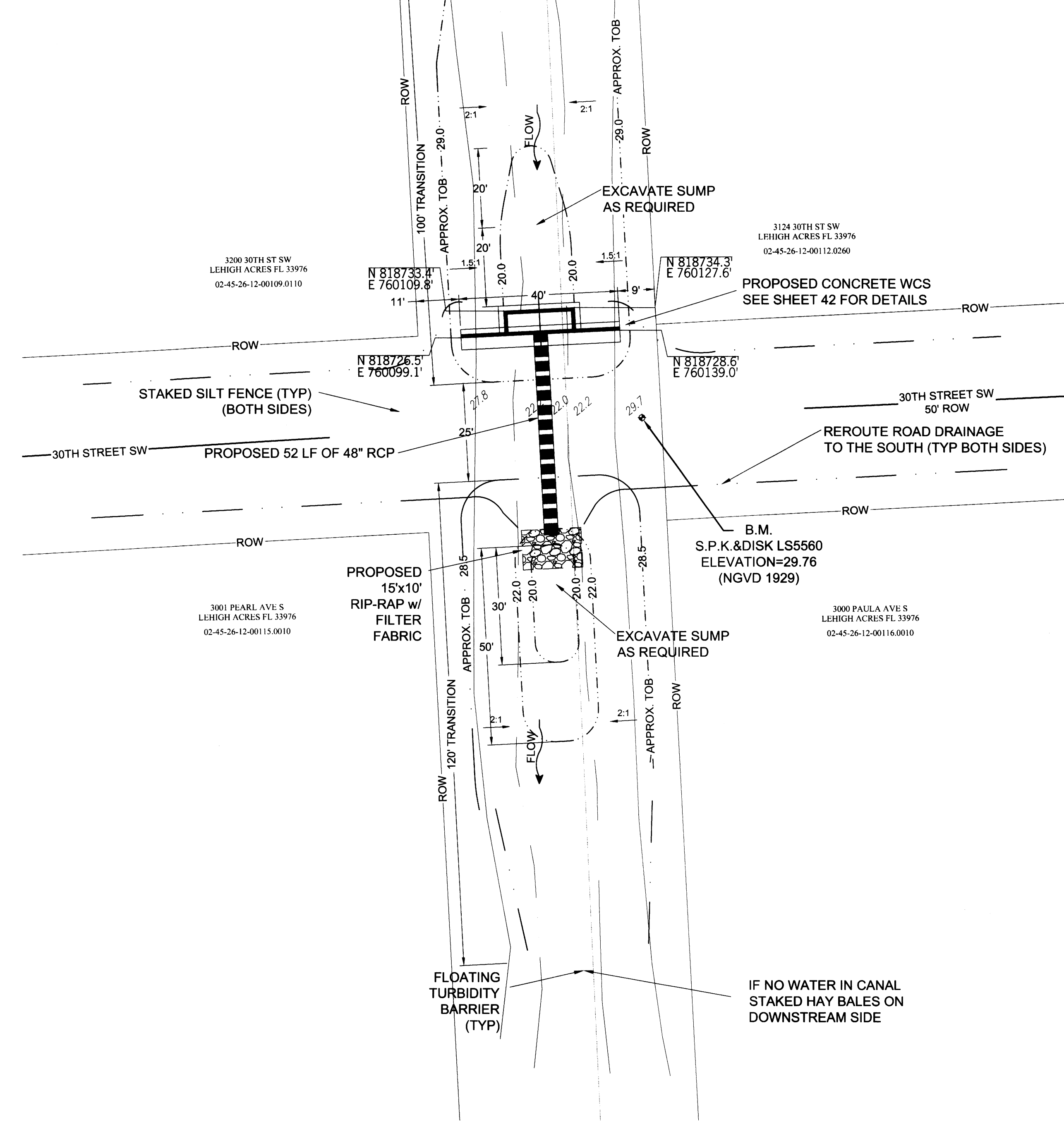
DATE: Richard H. Thompson, P.E. # 46720
 R.H.T. Engineering, Inc.
 319 Jiman Street
 Lehigh, PA 18036
 (610) 369-8900
 Engineering Certificate of Authorization # 2882



1" = 20'
N



1" = 20'
N



SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 21 AERIAL AND PLAN VIEW

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

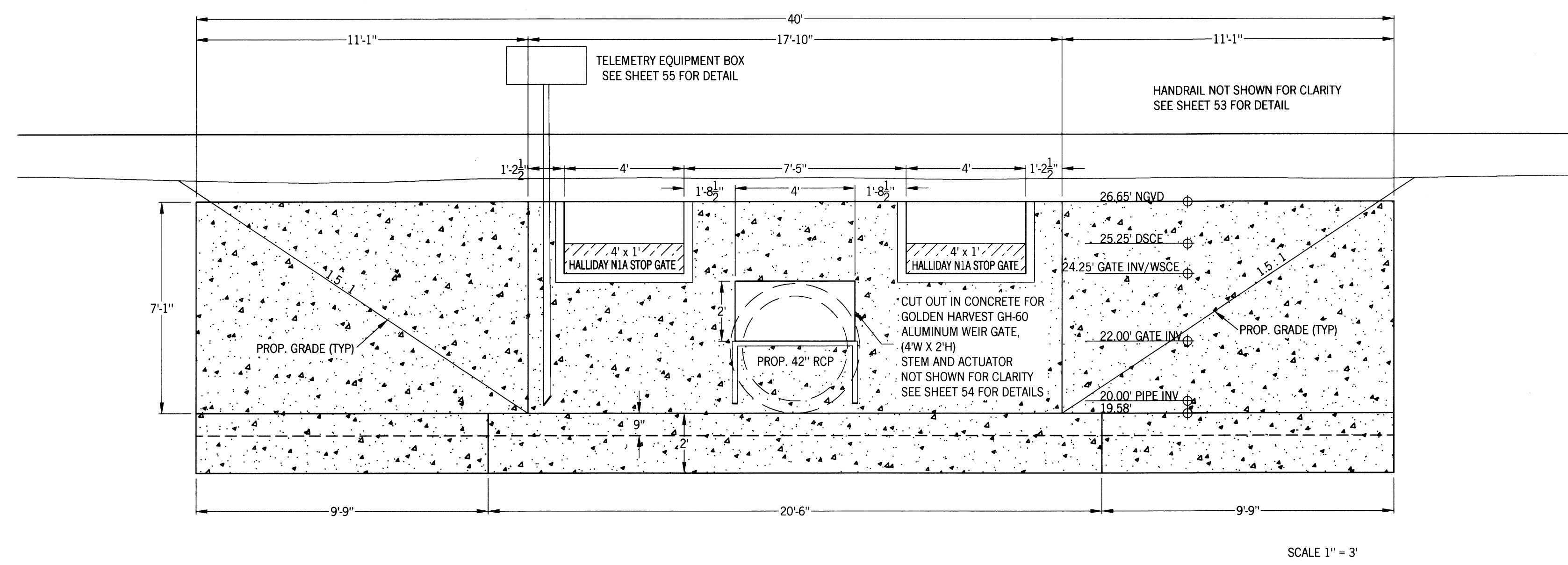
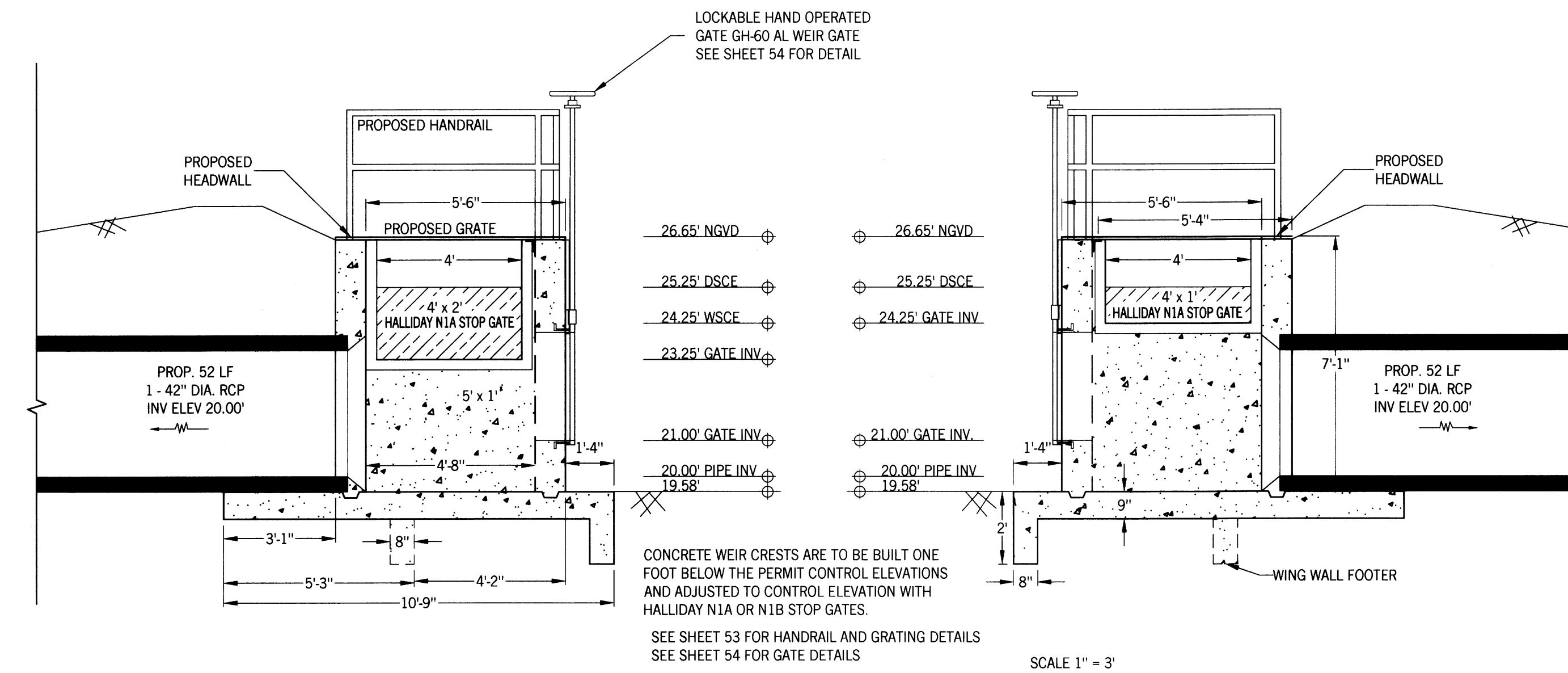
SHEET 41/56
DRAWN BY: RHT
CHECKED BY: RHT
APPROVED BY: RHT
DATE: SEPT 2015

NO.	REVISIONS

DATE: Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
319 Innan Street
Lehigh Acres, FL 33976
(239) 369-8900
Engineering Certificate of Authorization # 25852



REVISIONS



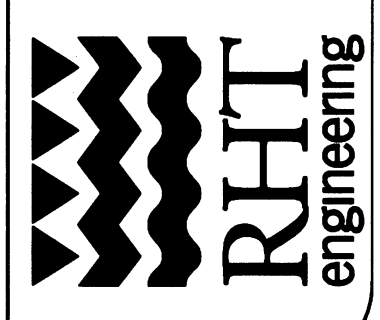
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 21 FRONT AND SIDE VIEWS

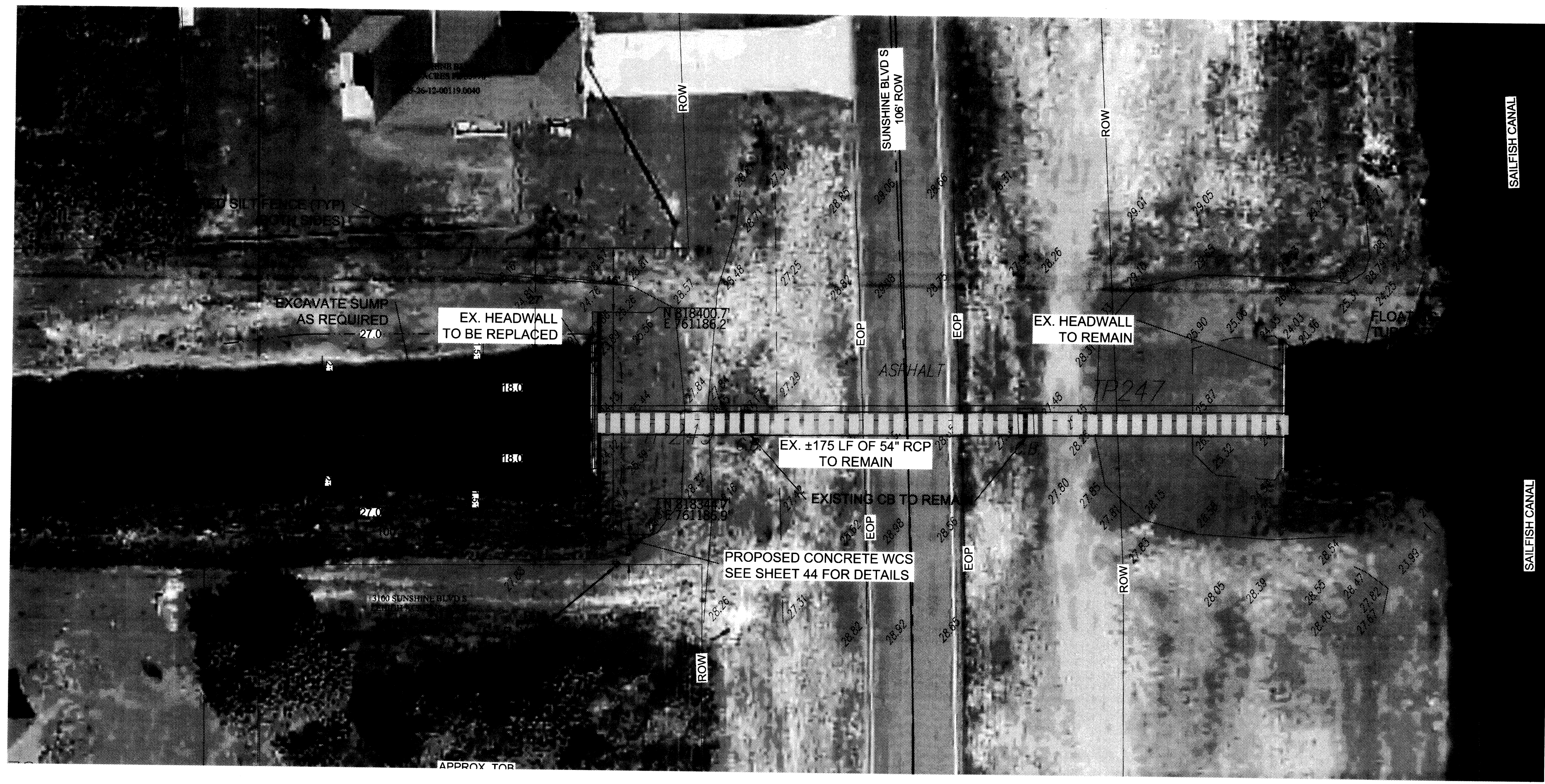
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

CLAM CANAL

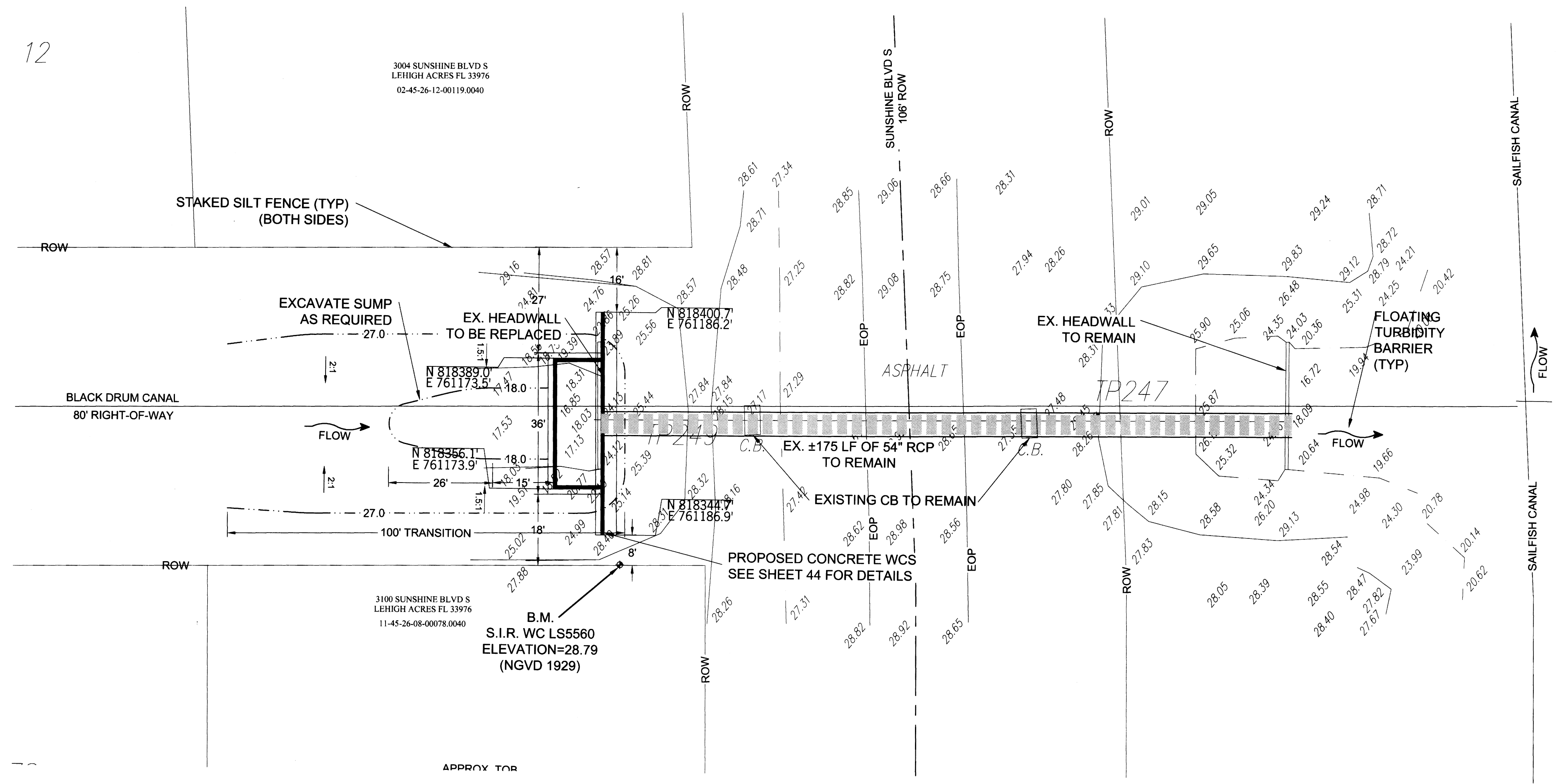
DATE: 4/6/20
Richard H. Thompson, P.E., # 46720
R.H.T. Engineering, Inc.
319 Inman Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization
25852



1" = 20'
N



1" = 20'
N



SHEET 43/56

DRAWN BY:
RHT
CHECKED BY:
RHT
APPROVED BY:
RHT
DATE:
SEPT 2015

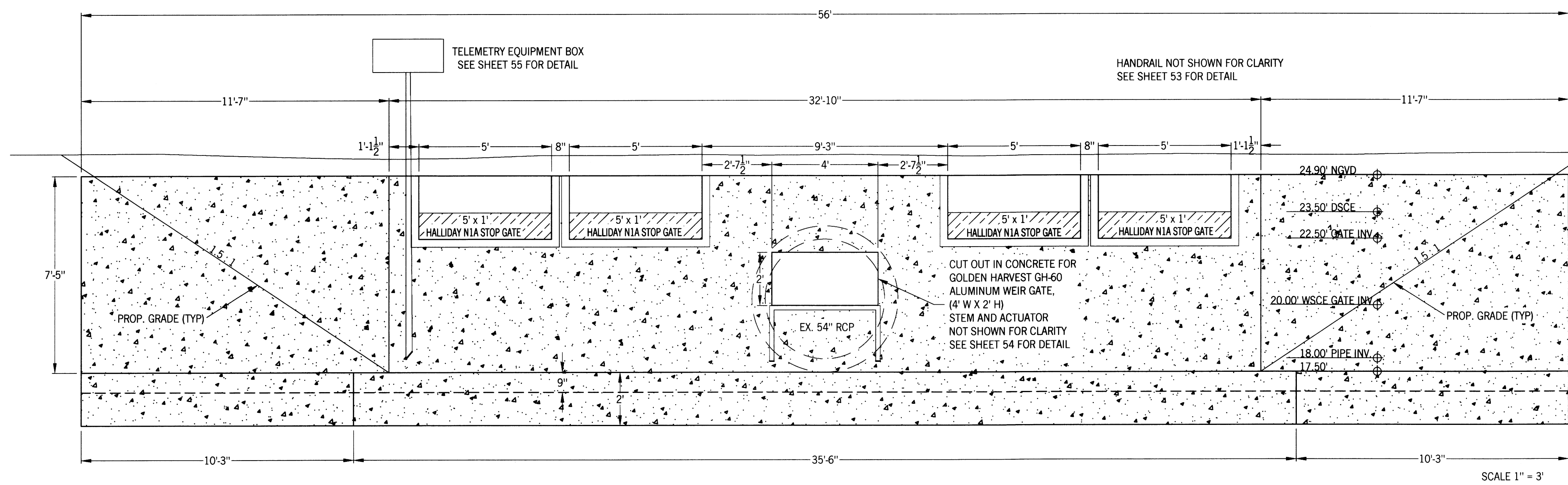
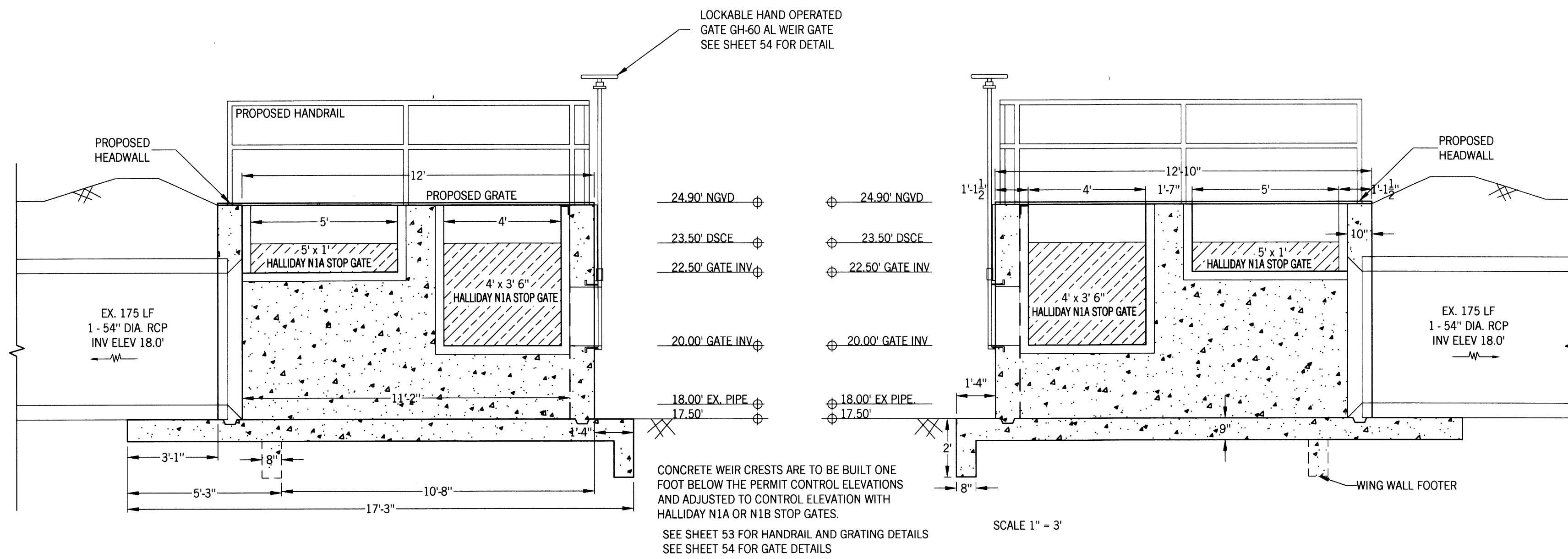
REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)
STRUCTURE 22 AERIAL AND PLAN VIEW

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
319 Innan Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization
252852



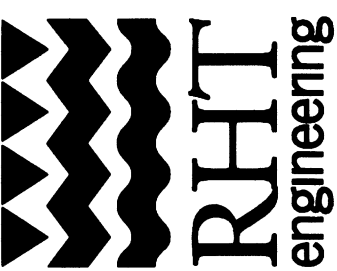


SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

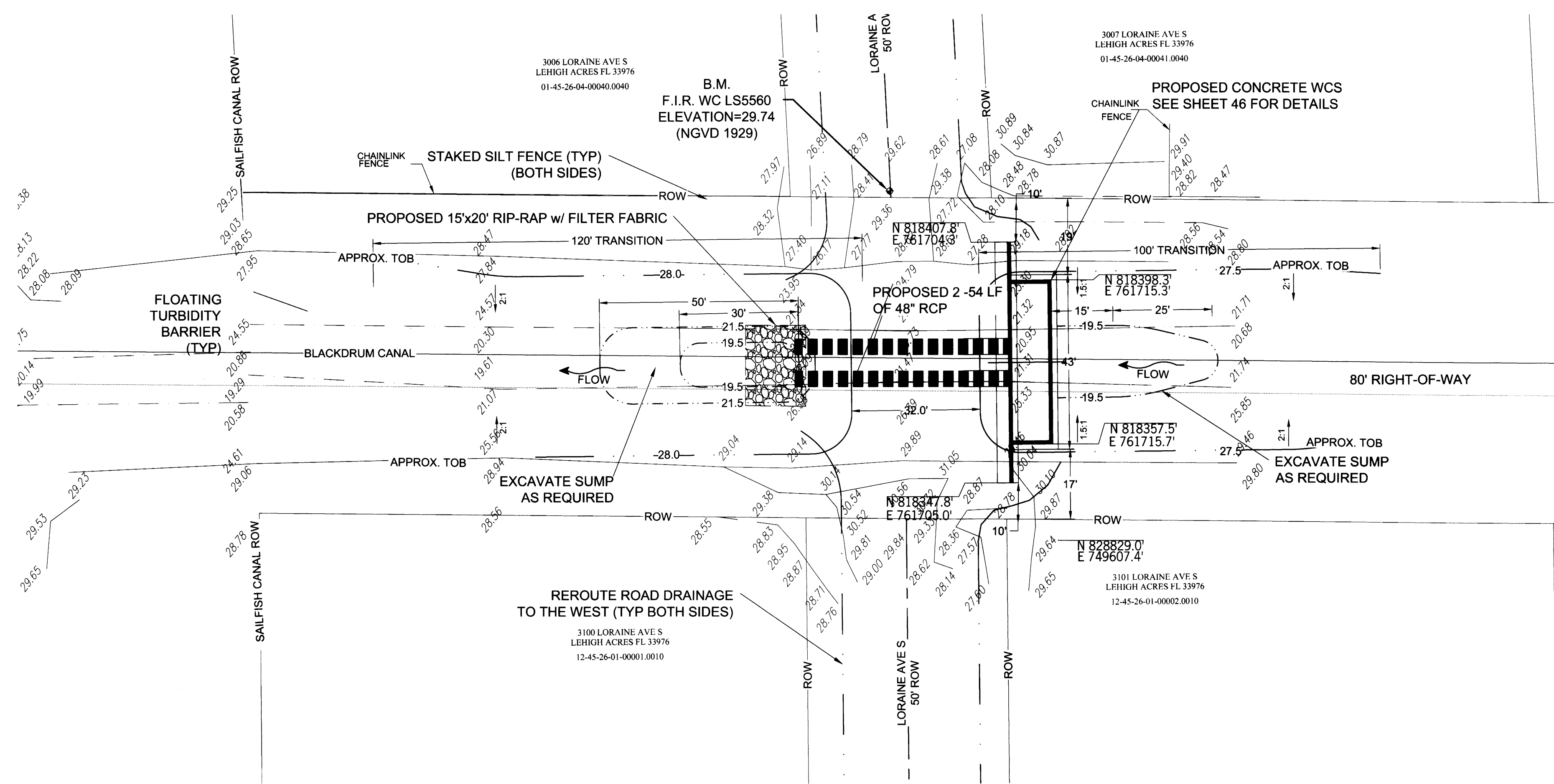
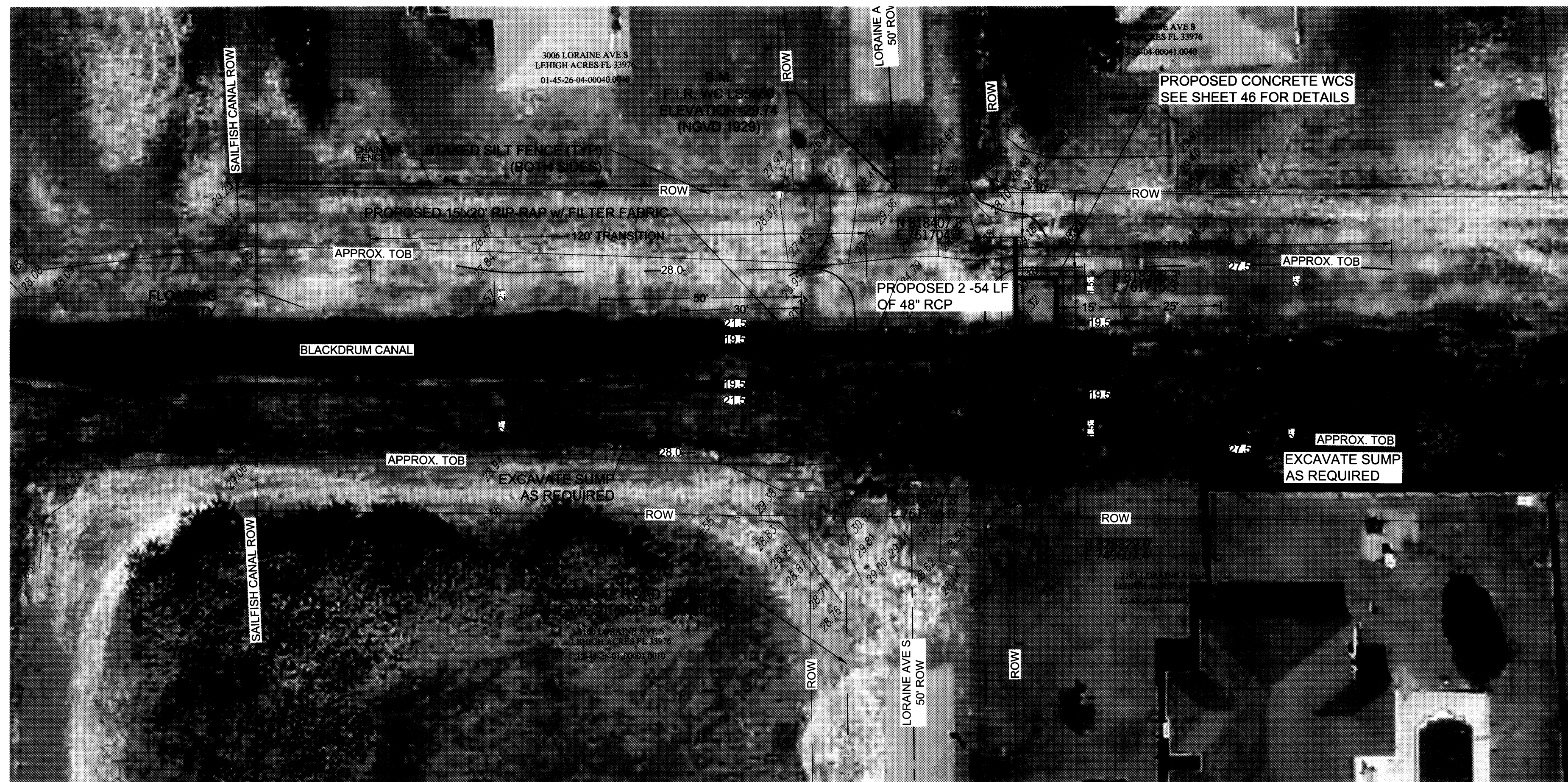
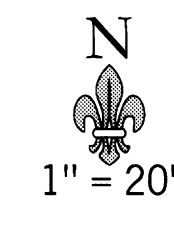
STRUCTURE 22 FRONT AND SIDE VIEWS

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

DATE: Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
 319 Innis Street
 Lehigh, PA 18201
 (610) 369-8900
 Engineering Certificate of Authorization # 2382



REVISIONS



REVISIONS

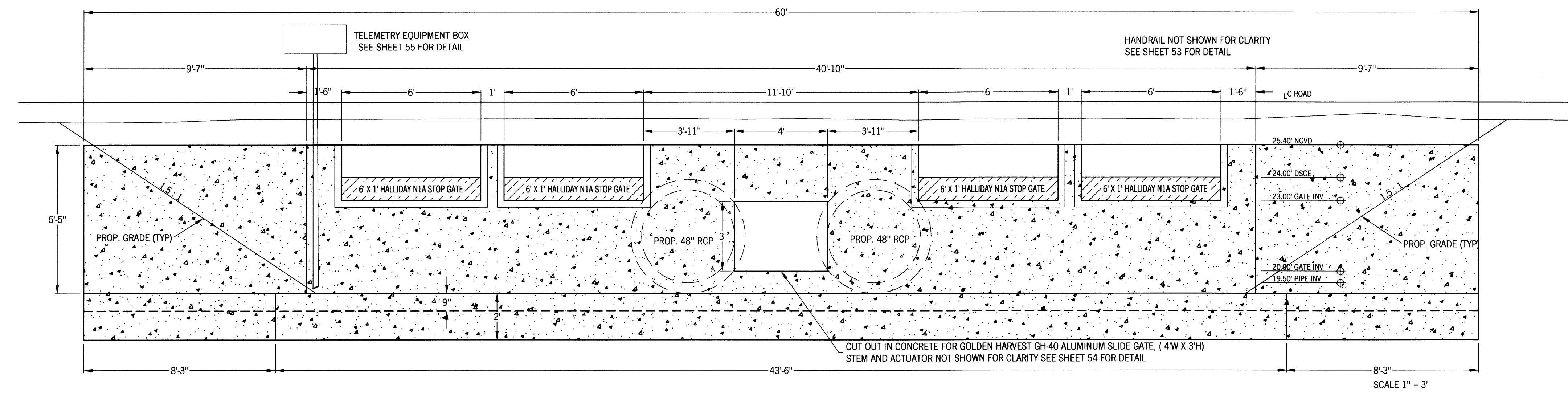
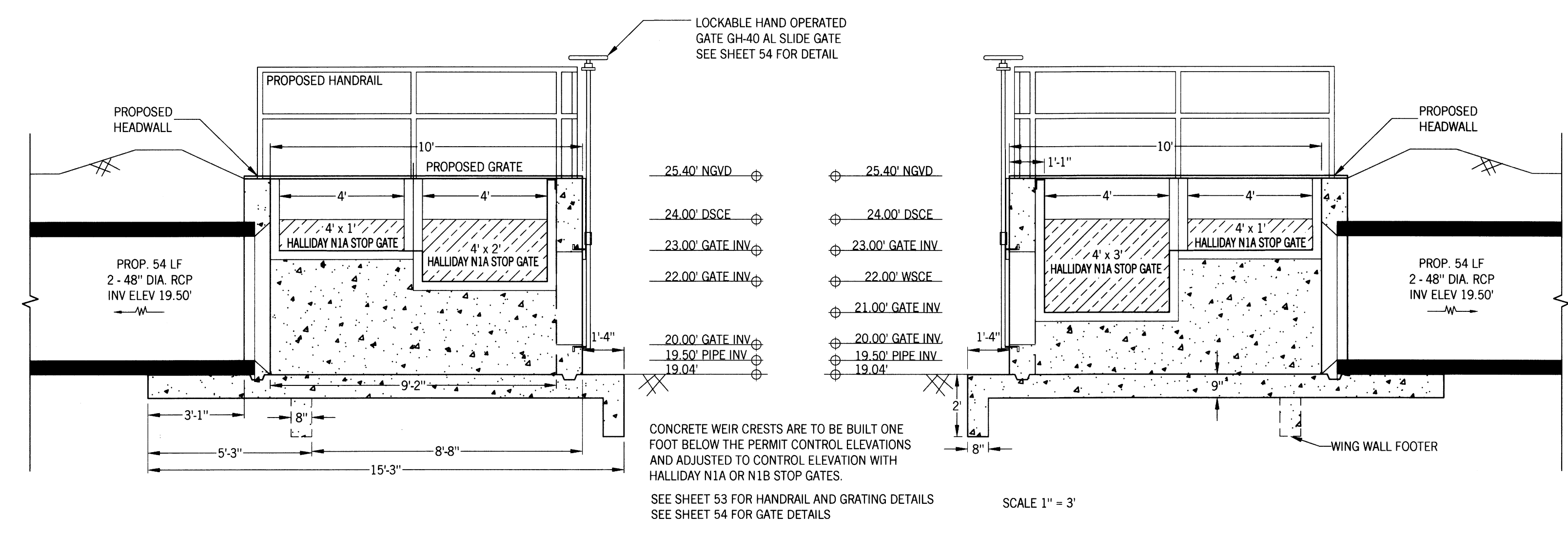
SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 23 AERIAL AND PLAN VIEW

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

DATE
Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
319 Innand Street
Lehigh Acres, FL 33976
(239) 369-8900
Engineering Certificate of Authorization
25652





NO.	DESCRIPTION

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 23 FRONT AND SIDE VIEWS

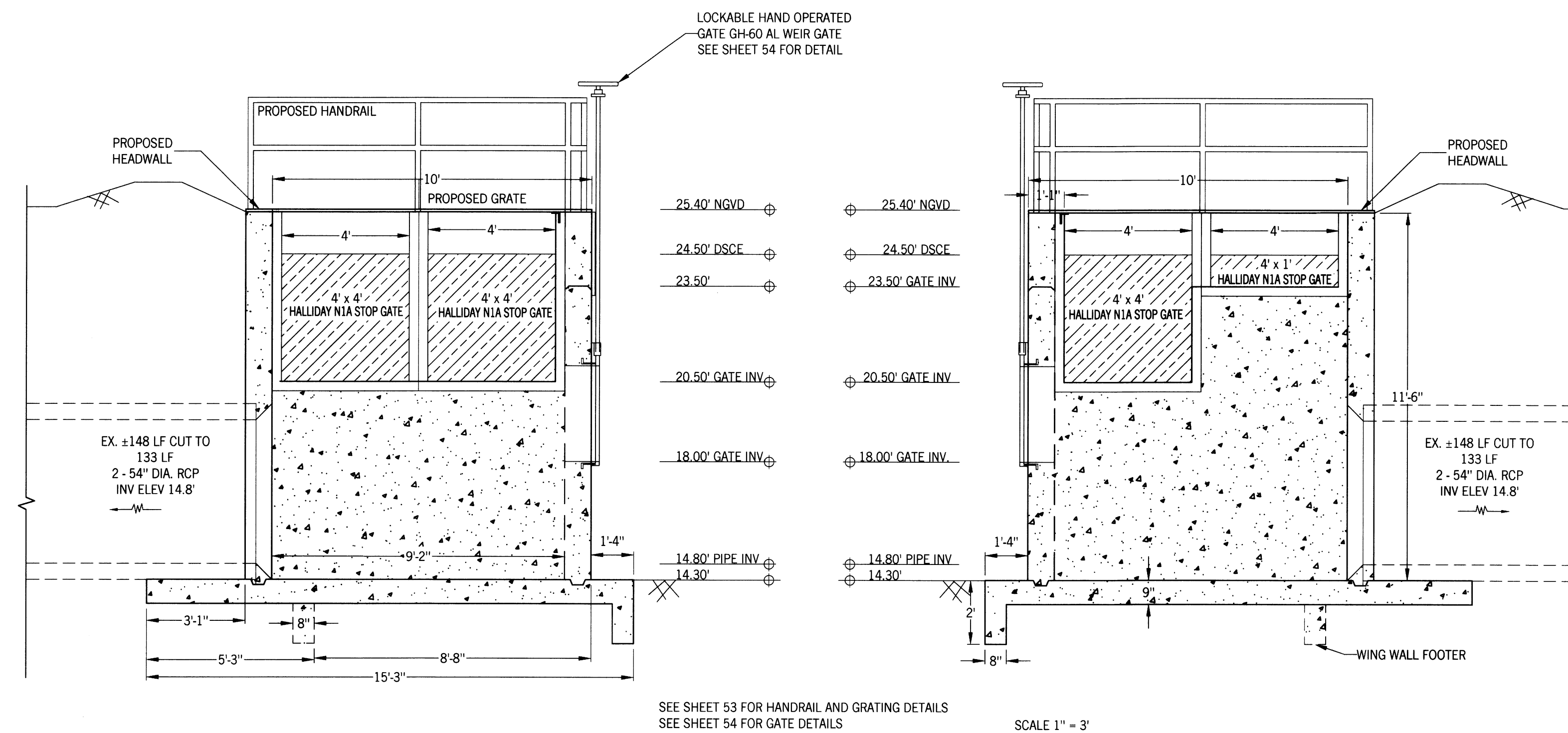
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

DATE: # 46720

Richard H. Thompson, P.E.

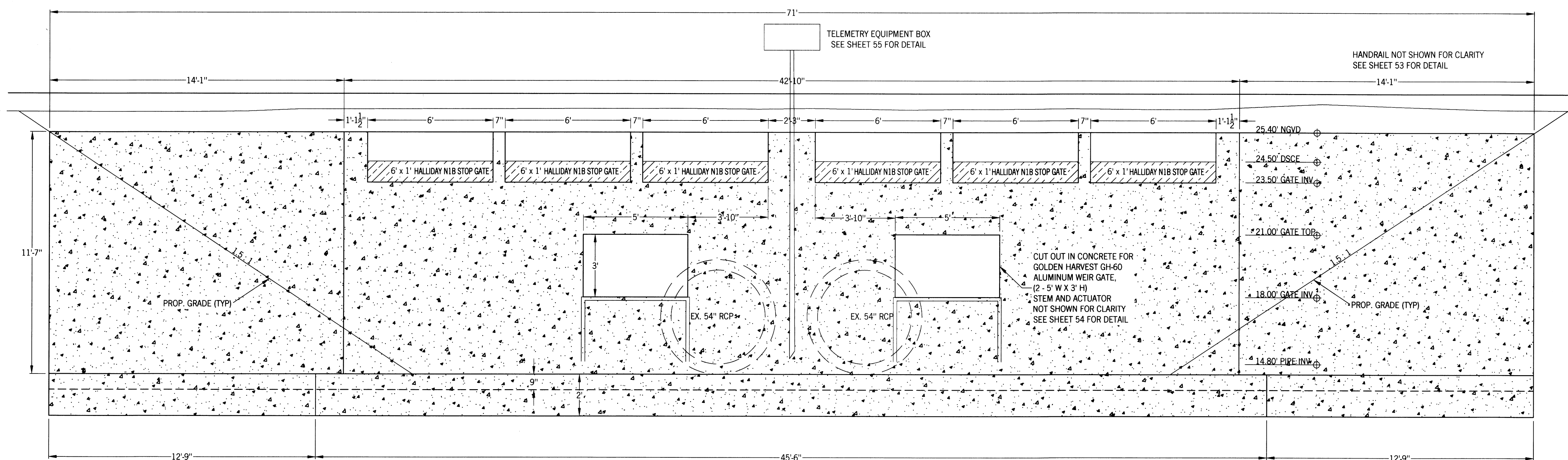
R.H.T. Engineering, Inc.
 319 Innan Street
 Lehigh Acres, FL 33936
 (239) 569-8900
 Engineering Certificate of Authorization # 25852





SEE SHEET 53 FOR HANDRAIL AND GRATING DETAILS
SEE SHEET 54 FOR GATE DETAILS

SCALE 1" = 3'



SCALE 1" = 3'

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)
STRUCTURE 24 FRONT AND SIDE VIEWS

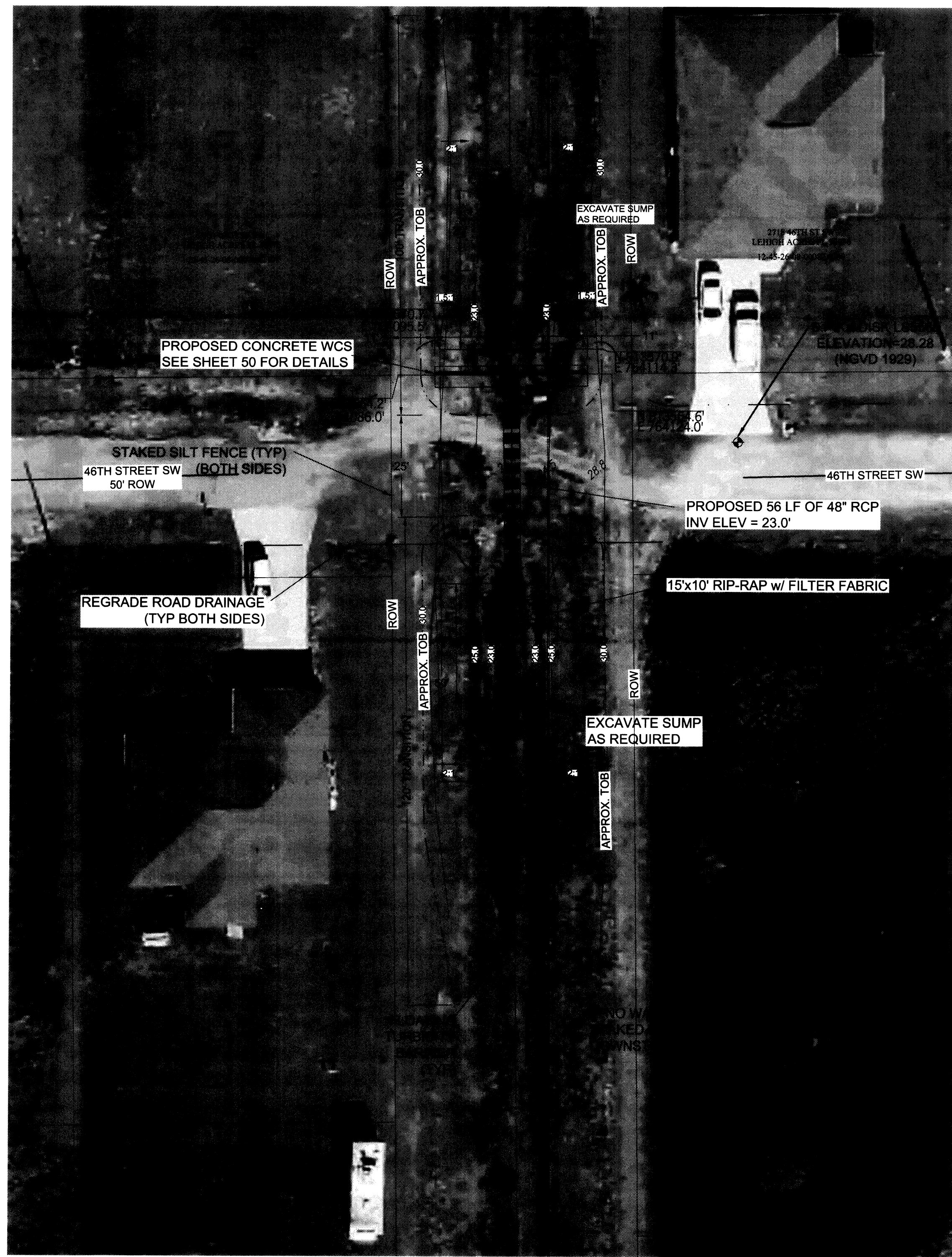
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT
SAILFISH CANAL

DATE: Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
319 Innana Street
Lehigh Acres, FL 33936
(239) 869-8900
Engineering Certificate of Authorization # 25852

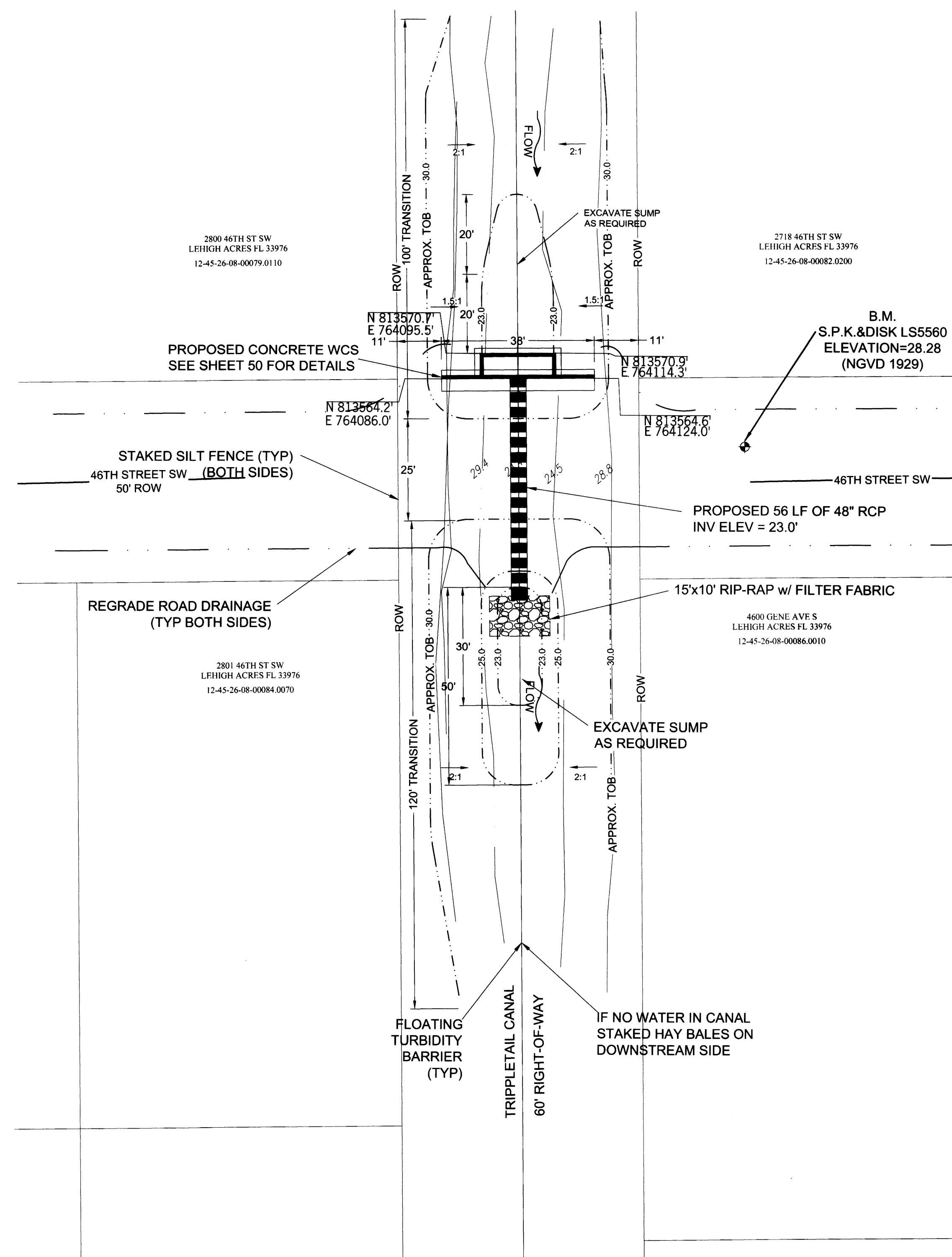


REVISIONS

1" = 20'
N



1" = 20'
N



SHEET 49/56
DRAWN BY: RHT
CHECKED BY: RHT
APPROVED BY: RHT
DATE: SEPT 2015

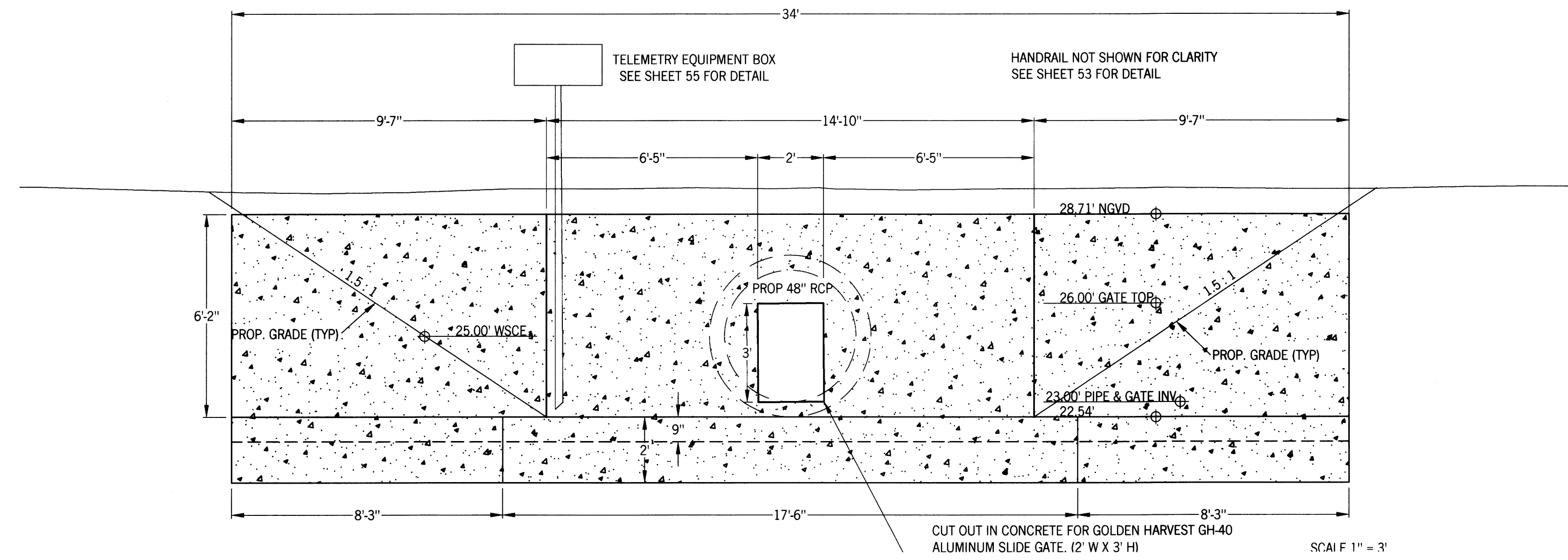
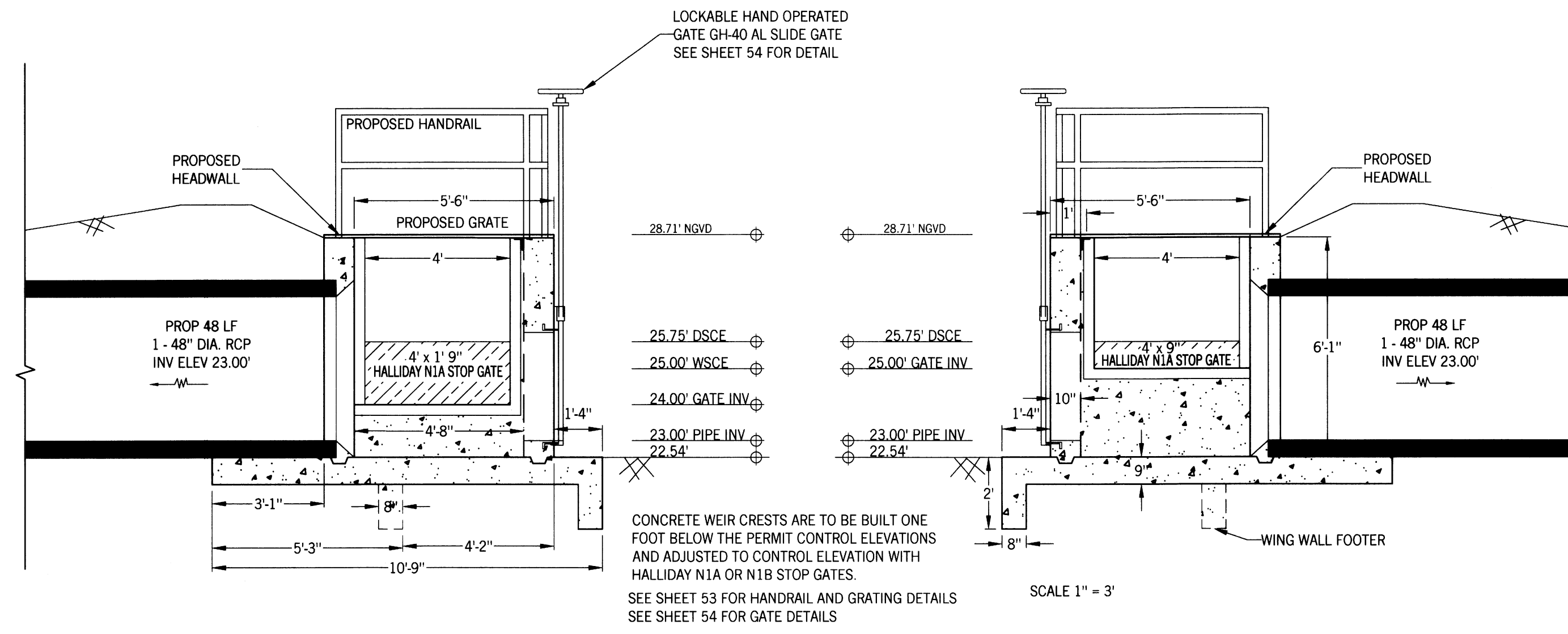
REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)
STRUCTURE 25 AERIAL AND PLAN VIEW
 CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT
 TRIPPLETAIL CANAL

DATE: _____
 Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
 319 Lehigh Acres Blvd.
 Lehigh Acres, FL 33976
 (239) 369-8900
 Engineering Certificate of Authorization
 # 23852



REVISIONS



SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 25 FRONT AND SIDE VIEWS

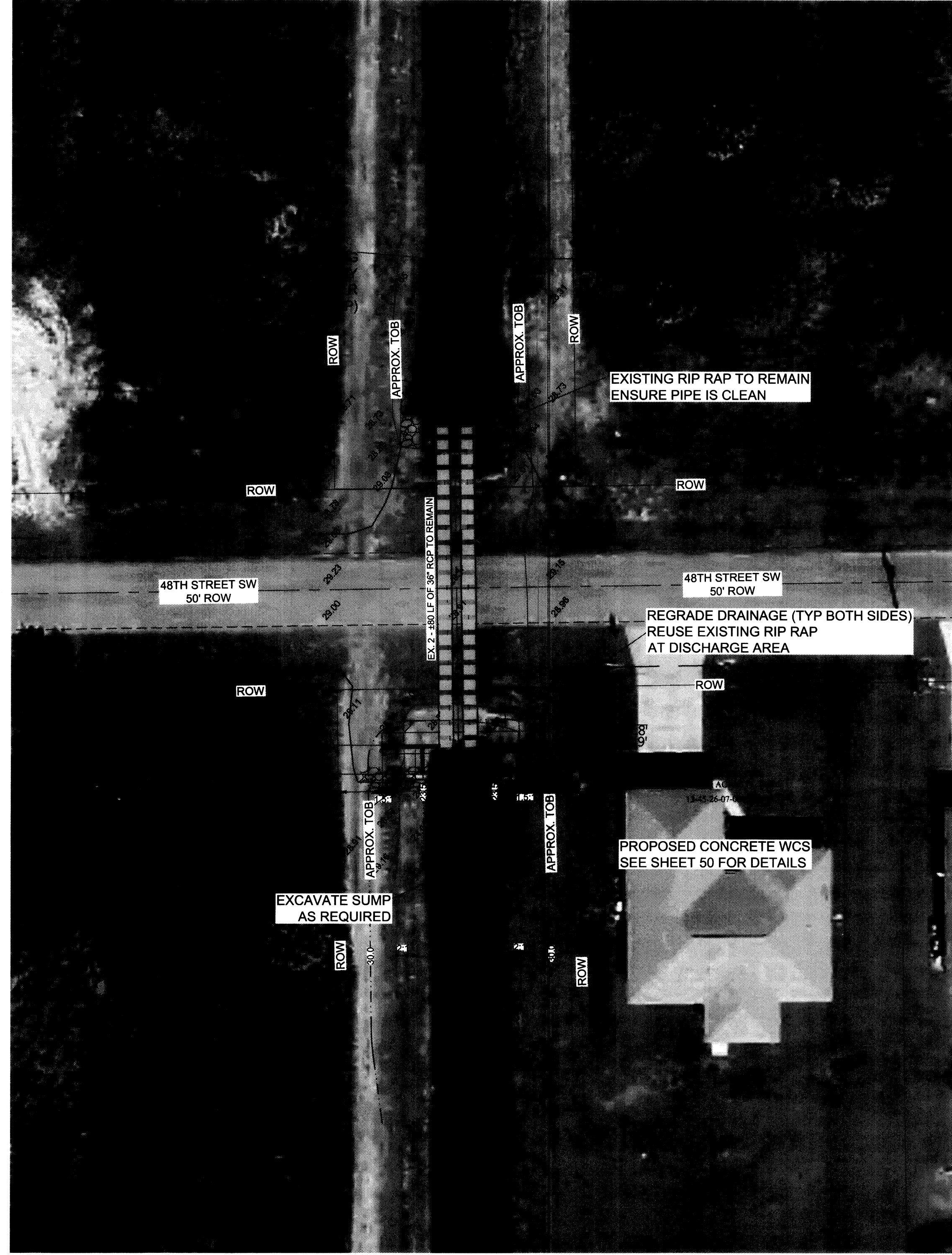
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

TRIPPLETAIL CANAL

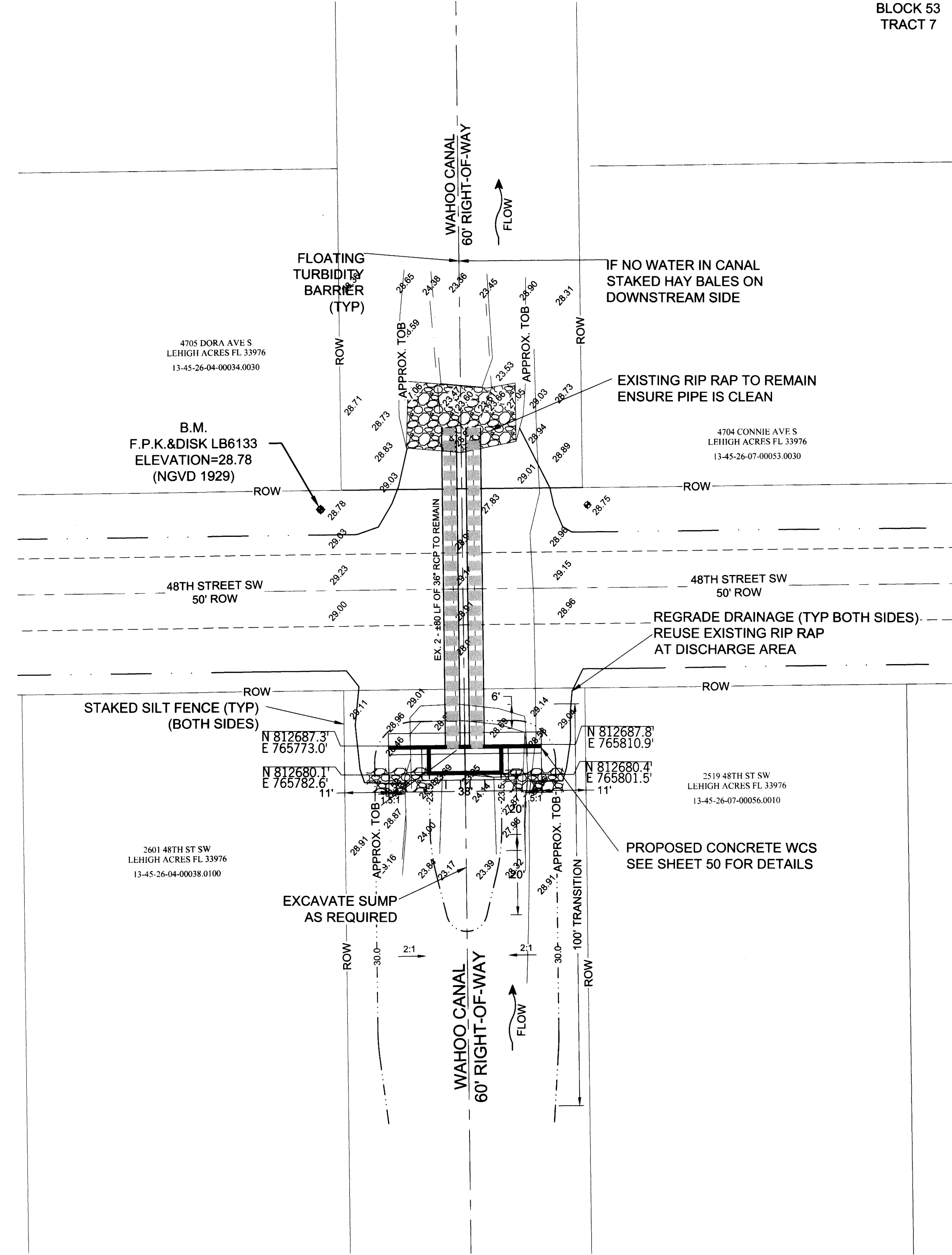
DATE: 4/6/20
 Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
 319 Inman Street
 Lehigh Acres, FL 33936
 (239) 369-8900
 Engineering Certificate of Authorization
 # 25852



1" = 20'
N



1" = 20'
N



BLOCK 53
TRACT 7

SHEET 51/56

DRAWN BY:
RHT
CHECKED BY:
RHT
APPROVED BY:
RHT
DATE:
SEPT 2015

REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

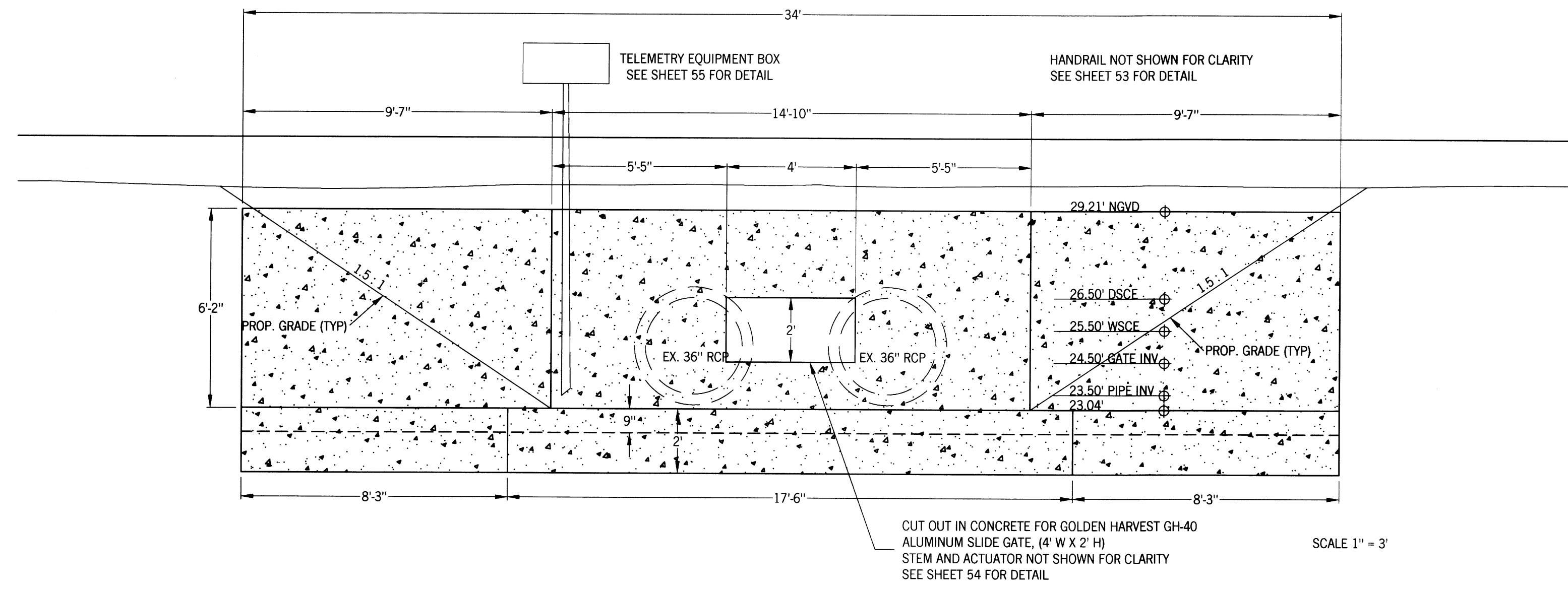
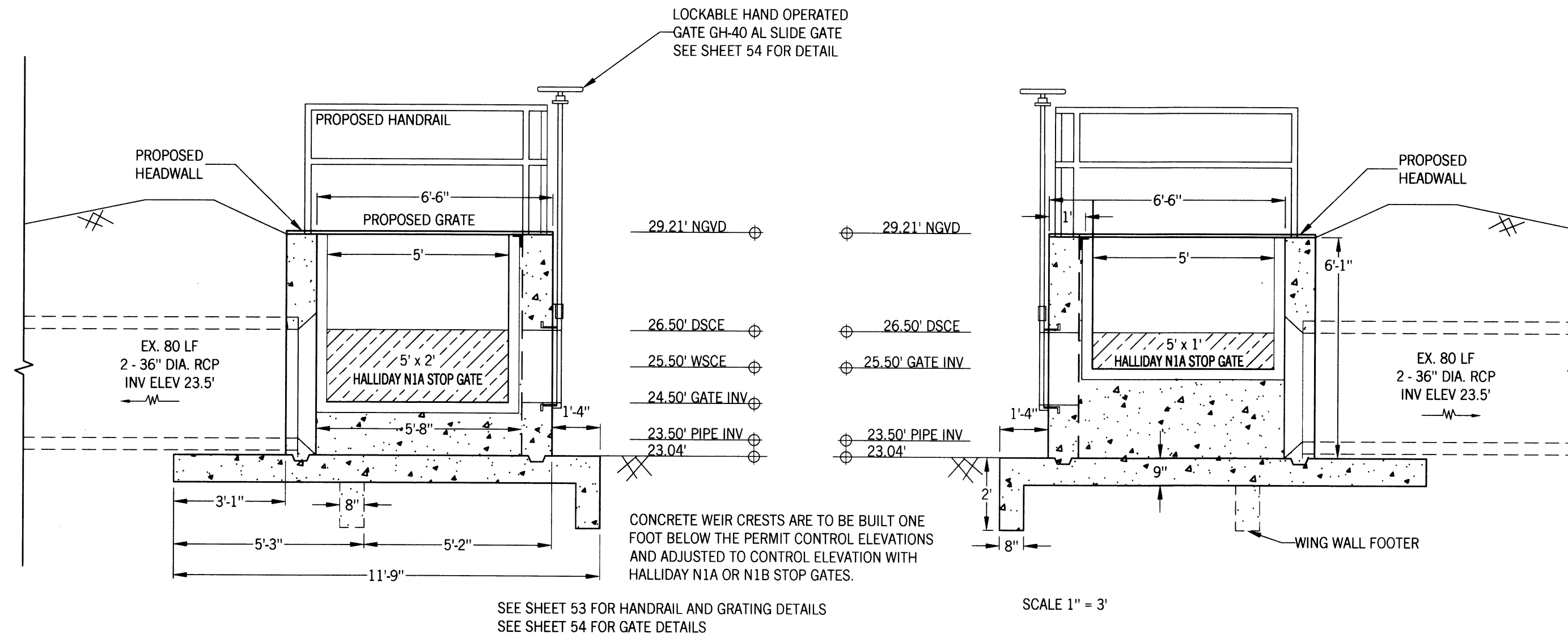
STRUCTURE 26 AERIAL AND PLAN VIEW

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

DATE: 4/6/20
Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
319 Inman Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization
25852



DRAWN BY:
RHT
CHECKED BY:
RHT
APPROVED BY:
RHT
DATE:
SEPT 2015



SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

STRUCTURE 26 FRONT AND SIDE VIEWS

WAHOO CANAL CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

DATE
Richard H. Thompson, P.E. # 46720
R.H.T. Engineering, Inc.
1319 Innans Road, Suite 33936
Lehigh, PA 18103
(239) 569-8900
Engineering Certificate of Authorization # 25828



REVISIONS

GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- THESE PLANS ARE FOR THE PERMANENT CONCRETE WATER CONTROL STRUCTURES FOR THE PROJECT REFERRED TO AS "LA-MSID SW BASIN STRUCTURES".

- THE CONTRACTOR SHALL FIELD LOCATE ALL OF THE ADJACENT PROPERTY CORNERS, PRIVATE LOT LINES, AND/OR RIGHT-OF-WAY LINES AND FIELD LOCATE EACH STRUCTURE. THE ENGINEER SHALL APPROVE THE FINAL PLACEMENT OF EACH STRUCTURE PRIOR TO CONSTRUCTION.

GENERAL SPECIFICATIONS:

- FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD CONSTRUCTION (2007 EDITION) AS AMENDED BY CONTRACT DOCUMENTS.

DESIGN SPECIFICATIONS:

- AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS (THIRD EDITION) AND APPROVED INTERIMS AS SPECIFIED IN THE FDOT STRUCTURES DESIGN GUIDELINES.

CONCRETE:

- ALL CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 346. CONCRETE CLASS II, MINIMUM 28- DAY COMPRESSIVE STRENGTH F'c = 4,500 PSI. BEVEL EXPOSED EDGES 3/4" UNLESS NOTED OTHERWISE.

CONCRETE COVER:

- USE 3 IN. CLEAR CONCRETE COVER FOR ALL REINFORCEMENT, UNLESS NOTED OTHERWISE. CONCRETE COVERS SHOWN ON THE PLANS DO NOT INCLUDE PLACEMENT AND FABRICATION TOLERANCES UNLESS SHOWN AS "MINIMUM COVER". SEE FDOT STANDARD SPECIFICATIONS FOR ALLOWABLE TOLERANCES.

REINFORCING STEEL:

- ALL REINFORCING SHALL BE ASTM A615, GRADE 60. CONCRETE SURFACE FINISH:
- APPLY A GENERAL SURFACE FINISH TO ALL EXPOSED CONCRETE SURFACES. IN ADDITION, USE A CLASS 3 SURFACE FINISH IN ACCORDANCE WITH FDOT SECTION 400-15.

JOINTS IN CONCRETE:

- FDOT SECTION 400-9.

EXCAVATION AND BACKFILL:

- FDOT SECTION 125.

PIPE HANDRAIL STEEL:

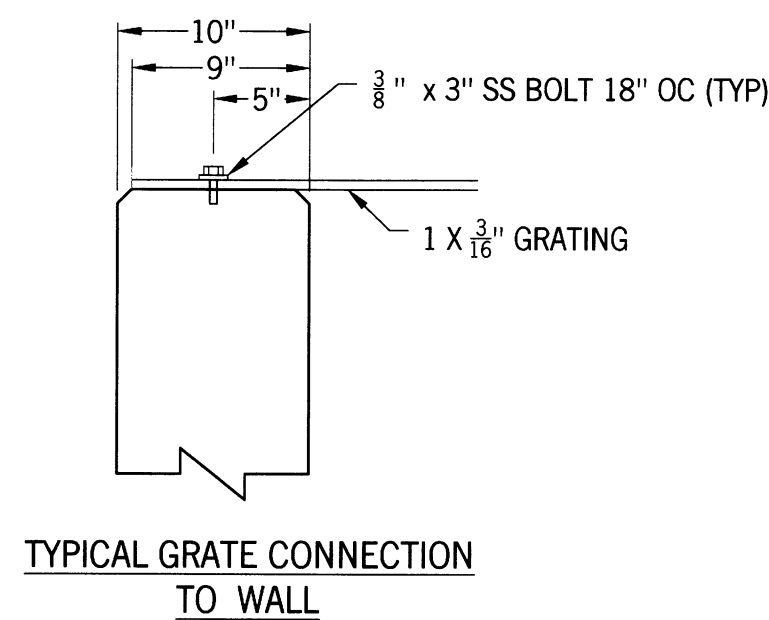
- FIELD VERIFY ALL MEASUREMENTS BEFORE FABRICATION.
- DESIGN REQUIREMENTS: RAILING ASSEMBLY AND ATTACHMENTS TO RESIST LATERAL FORCE OF 50 PLF OR 200 LBS CONCENTRATED AT ANY POINT WITHOUT DAMAGE OR PERMANENT SET AND MEET OR EXCEED REQUIREMENTS OF OSHA AND BUILDING CODE.
- WELDED HOT-DIPPED GALVANIZED STEEL SYSTEM CONSTRUCTED IN ACCORDANCE WITH FDOT SECTIONS 515 AND 962-9.1, AS AMENDED BY CONTRACT DOCUMENTS.
- RAILS AND POSTS: 1 1/2" STEEL PIPE (1.9 IN. OD, 0.145 IN. WALLS), EXTRUDED TUBING CONFORMING TO ASTM A53, SMOOTH WELDED JOINTS.
- SHOP DRAWINGS: INDICATE PROFILES, SIZES, CONNECTIONS, ANCHORAGE, SIZE AND TYPE OF FASTENERS, AND ACCESSORIES.
- FITTINGS: HOT DIPPED GALVANIZED
- MOUNTING: BRACKETS AND FLANGES WITH HOT DIPPED GALVANIZED BOLTS.
- SPLICE CONNECTORS: CONCEALED SPIGOT; HOT DIPPED GALVANIZED
- EXPOSED FASTENERS: FLUSH COUNTERSUNK SCREWS OR BOLTS CONSISTENT WITH DESIGN OF RAILING.
- BOLTS, NUTS, FASTENERS: HOT DIPPED GALVANIZED.
- FABRICATION: SEAL JOINED PIECES BY CONTINUOUS WELDS. DRILL CONDENSATE DRAINAGE HOLES AT BOTTOM OF MEMBERS AT LOCATIONS THAT WILL NOT ENCOURAGE WATER INTRUSION. GRIND EXPOSED JOINTS FLUSH AND SMOOTH WITH ADJACENT FINISH SURFACE. MAKE EXPOSED JOINTS BUTT TIGHT, FLUSH, AND HAIRLINE. EASE EXPOSED EDGES WITH SMALL UNIFORM RADIUS. ACCOMMODATE FOR EXPANSION AND CONTRACTION OF MEMBERS. BEND CORNERS AND ELBOWS TO SMALLEST POSSIBLE UNIFORM RADIUS WITHOUT CAUSING GRAIN SEPARATION, BUCKLING, OR TWISTING. BEND AND WELD COMPONENTS BEFORE ANODIZING. REPAIR ANODIZING ON AND ADJACENT TO FIELD WELDS. COORDINATE SPECIAL CONNECTION REQUIREMENTS WITH THE DISTRICT AND THE GATE MANUFACTURER.

STEEL GRATING:

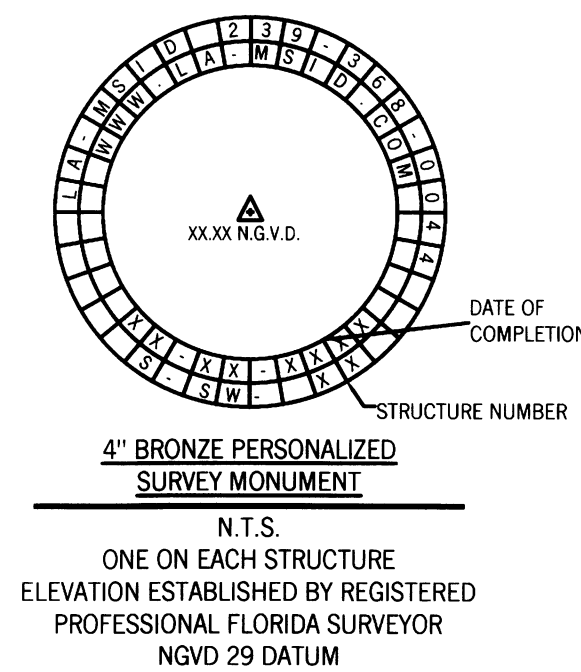
- FIELD VERIFY ALL MEASUREMENTS BEFORE FABRICATION.
- PERFORMANCE REQUIREMENTS: DESIGN LIVE LOAD OF 100 PSF MINIMUM, MAXIMUM DEFLECTION OF 1/240 OF SPAN. ALL SECTIONS TO BE REMOVABLE FOR ACCESS TO CLEAN UP DEBRIS ON TOP OF THE SHEET PILE WALL BELOW.
- SHOP DRAWINGS: INDICATE DETAILS OF COMPONENT SUPPORTS, OPENINGS, PERIMETER CONSTRUCTION, TOLERANCES, AND NET WELD LENGTHS.
- SAMPLE: SUBMIT SAMPLE ILLUSTRATING SURFACE FINISH, COLOR, AND TEXTURE.
- MANUFACTURER: IKG INDUSTRIES TYPE B HOT DIPPED GALVANIZED STEEL GRATING OR APPROVED EQUAL.
- MATERIAL: EXTRUDED HOT DIPPED GALVANIZED STEEL 6061 PER ASTM A123. MILL FINISH.
- ACCESSORIES: HOT DIPPED GALVANIZED FASTENERS AND SADDLE CLIPS; PERIMETER CLOSURE OF SAME MATERIAL AS GRATING.
- FABRICATION: SERRATED TOP SURFACE; MECHANICALLY CLINCH JOINTS OF INTERSECTING METAL SECTIONS; FABRICATE SUPPORT FRAMING FOR OPENINGS; BEARING BARS SPACED AT 1 3/16 INCHES; CROSS BARS SPACED 4 INCHES ON CENTER; BAND ALL EDGES AND CUTOUTS; COORDINATE SPECIAL GRATING AND FRAMING REQUIREMENTS WITH THE OWNER AND THE GATE MANUFACTURER.

STRUCTURAL STEEL

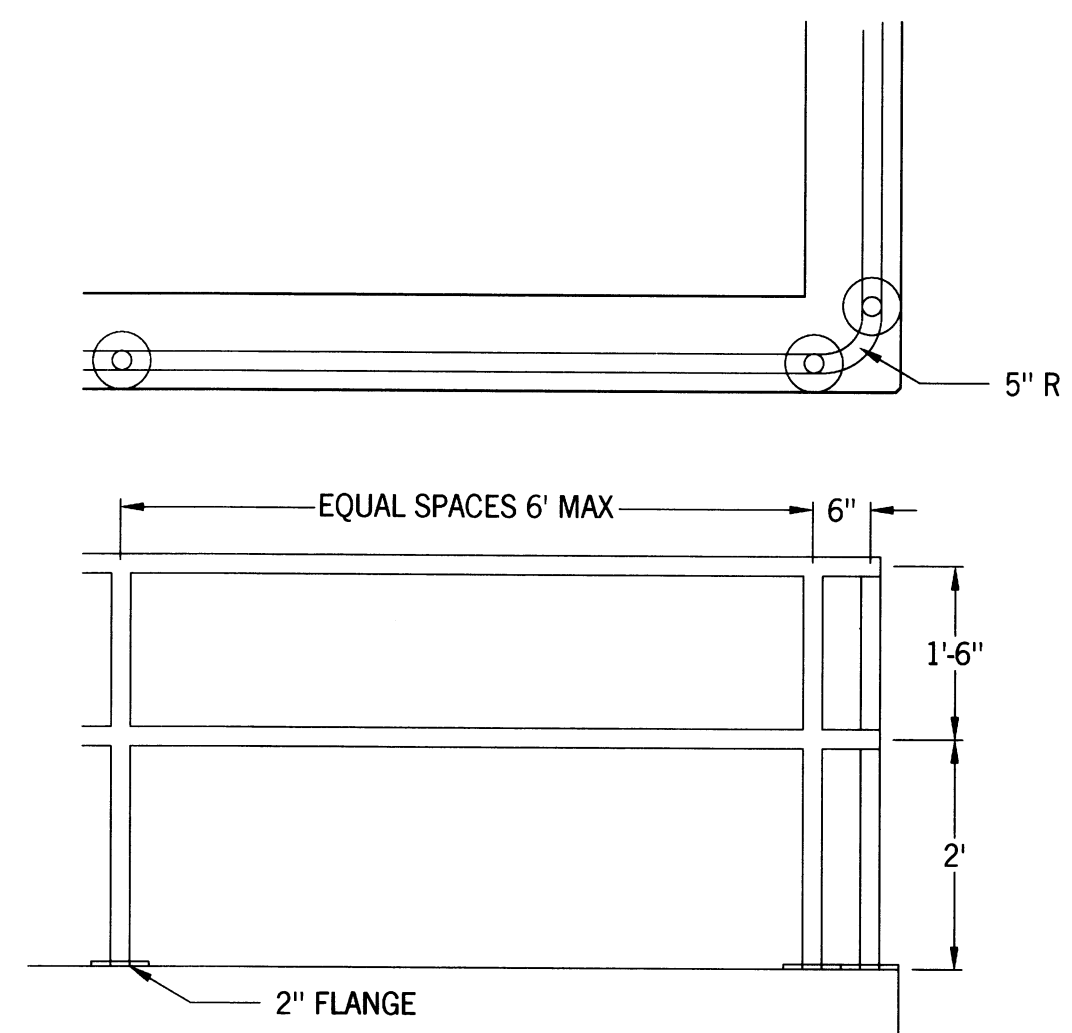
- STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE AISC "STEEL CONSTRUCTION MANUAL," THIRTEENTH EDITION AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES," MARCH 18, 2005 EDITION.
- ALL WELDING SHALL COMPLY WITH AWS D1.1 USING E70XX ELECTRODES. ALL WELDING TO BE DONE BY AWS PREQUALIFIED WELDERS, CERTIFIED FOR WELDS MADE. PROVIDE CONTINUOUS MINIMUM SIZED WELDS PER AISC REQUIREMENTS, UNLESS NOTED OTHERWISE.
- THE MINIMUM SIZE OF FILLET WELDS SHALL BE AS SPECIFIED IN TABLE J2.4 IN THE AISC MANUAL OF STEEL CONSTRUCTION.
- BOLTED CONNECTIONS SHALL BE MADE WITH ASTM A-325 HIGH STRENGTH BOLTS (MIN 3/4-INCH DIAMETER). CONNECTIONS SHALL SUPPORT, AT A MINIMUM, ONE-HALF THE TOTAL UNIFORM LOAD CAPACITY SHOWN IN THE AISC TABLES OF UNIFORM LOAD CONSTANTS FOR THE GIVEN BEAM, SPAN, AND STEEL SPECIFIED, UNLESS OTHERWISE DETAILED. BEAM-TO-BEAM AND BEAM-TO-COLUMN FRAMING CONNECTIONS SHALL BE MADE WITH DOUBLE ANGLES UNLESS OTHERWISE DETAILED.
- ALL STRUTS, HANGERS, AND BRACES SHALL HAVE CONNECTIONS DESIGNED TO DEVELOP THE FULL ALLOWABLE TENSILE STRENGTH OF THE MEMBER UNLESS THE DESIGN FORCE IS INDICATED ON THE DRAWINGS, IN WHICH CASE THE CONNECTIONS SHALL BE DESIGNED FOR THE FORCE INDICATED.
- CLEAN, PREPARE, AND SHOP PRIME EXTERIOR EXPOSED STRUCTURAL STEEL MEMBERS IN ACCORDANCE WITH S.S.P.C. STANDARDS SP-1 AND SP-6.
- WHILE THE DESIGN DOCUMENTS MAY REFERENCE OSHA, THEY ARE NOT INTENDED TO SPECIFICALLY IDENTIFY ALL APPLICABLE OSHA REQUIREMENTS. IT IS THE CONTRACTORS RESPONSIBILITY TO IDENTIFY AND COMPLY WITH ALL APPLICABLE OSHA REQUIREMENTS.
- ALL STRUCTURAL STEEL PERMANENTLY EXPOSED TO THE WEATHER SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123, UNLESS OTHERWISE NOTED. PROVIDE MINIMUM 2.0 OZ./SQ. FT., (3.4 mils) GALVANIZED COATING FOR MEMBERS 3/16-INCH TO 1/4-INCH THICK, AND 2.3 OZ./SQ. FT. (3.9 mils) FOR MEMBERS GREATER THAN 1/4-INCH THICK.
- ALL STEEL SHALL BE POSITIONED WITH THE NATURAL CAMBER OR INDUCED CAMBER TURNED UP.
- TOUCH UP ANY DAMAGED GALVANIZED COATING OR FIELD WELDS WITH ZINC-RICH COLD GALVANIZING COMPOUND
- EQUIVALENT HOT DIPPED GALVANIZED STEEL MAY BE PROPOSED AS AN ALTERNATIVE TO ALUMINUM COMPONENTS



TYPICAL GRATE CONNECTION TO WALL



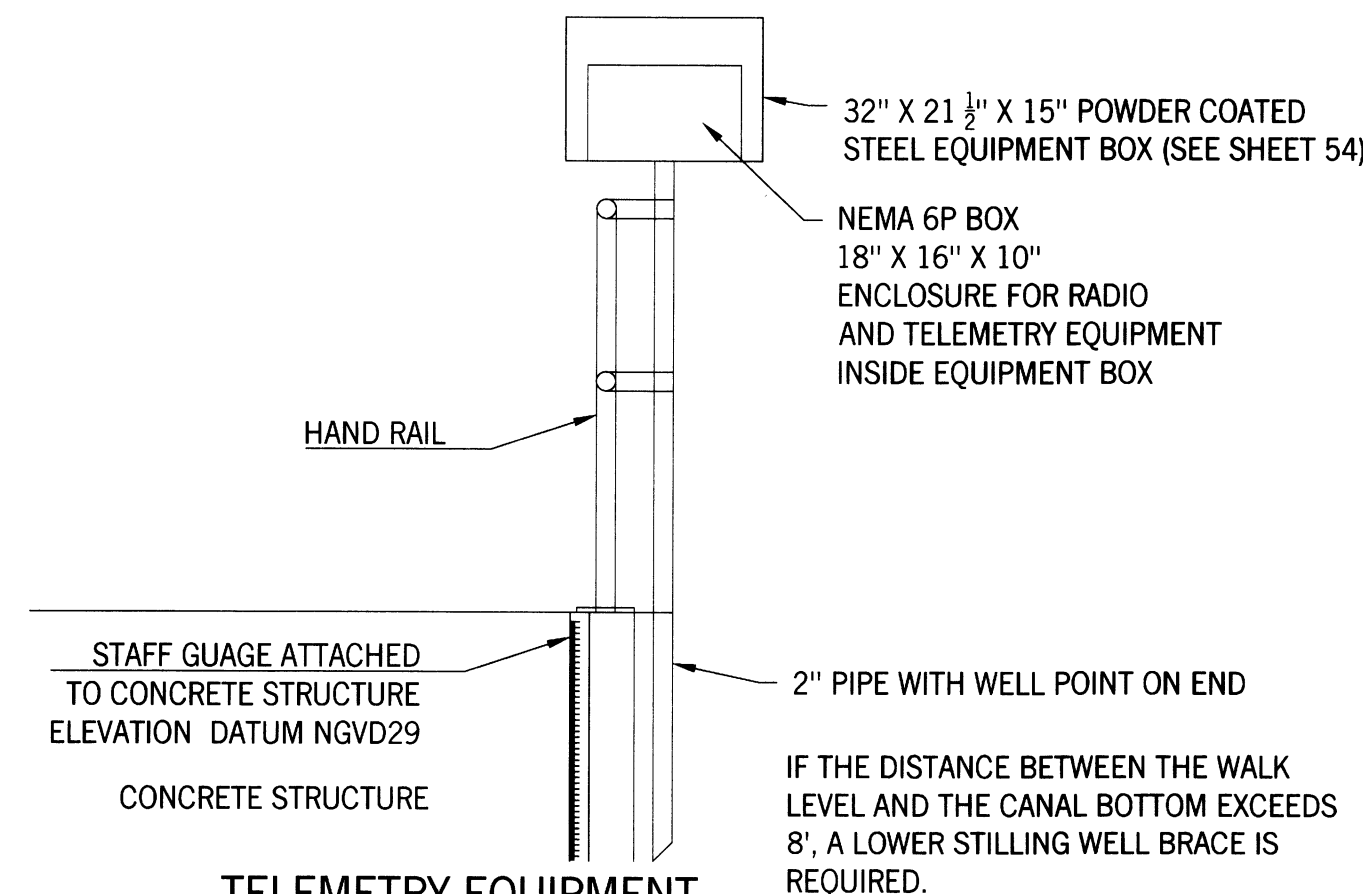
4" BRONZE PERSONALIZED SURVEY MONUMENT
N.T.S.
ONE ON EACH STRUCTURE
ELEVATION ESTABLISHED BY REGISTERED PROFESSIONAL FLORIDA SURVEYOR
NGVD 29 DATUM



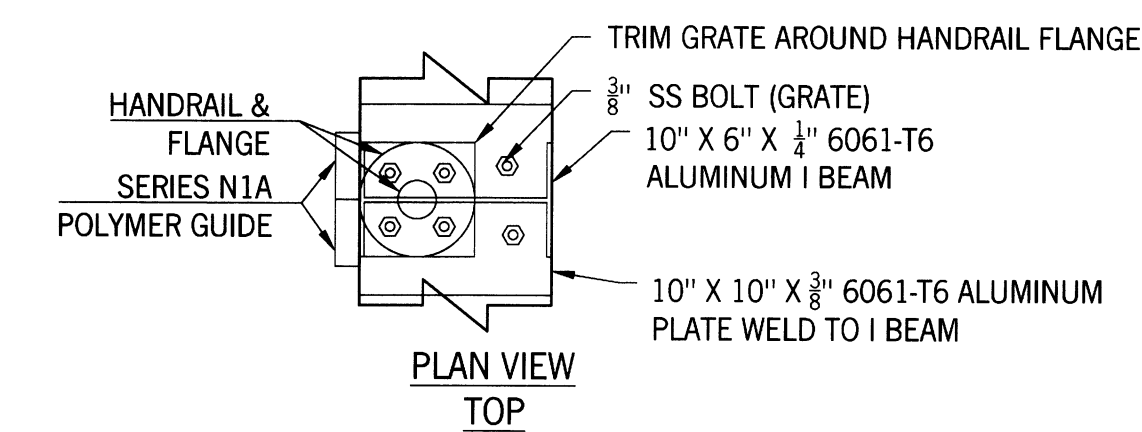
TYPICAL HANDRAIL DETAIL

NOTES:

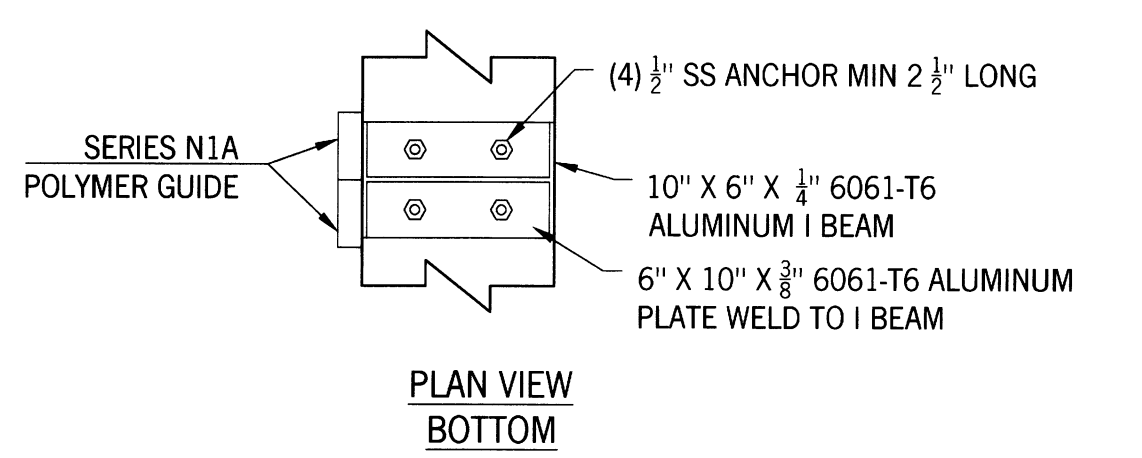
1. ALL PIPE SHALL BE 2" SCHD 40 HOT DIPPED GALVANIZED.
2. POSTS SHALL BE EVENLY SPACED AND NO MORE THAN 6' APART.
3. POSTS SHALL BE CONNECTED TO STRUCTURE WITH 2" FLANGES.
4. FLANGES SHALL BE CONNECTED PER MANUFACTURERS RECOMMENDATION.



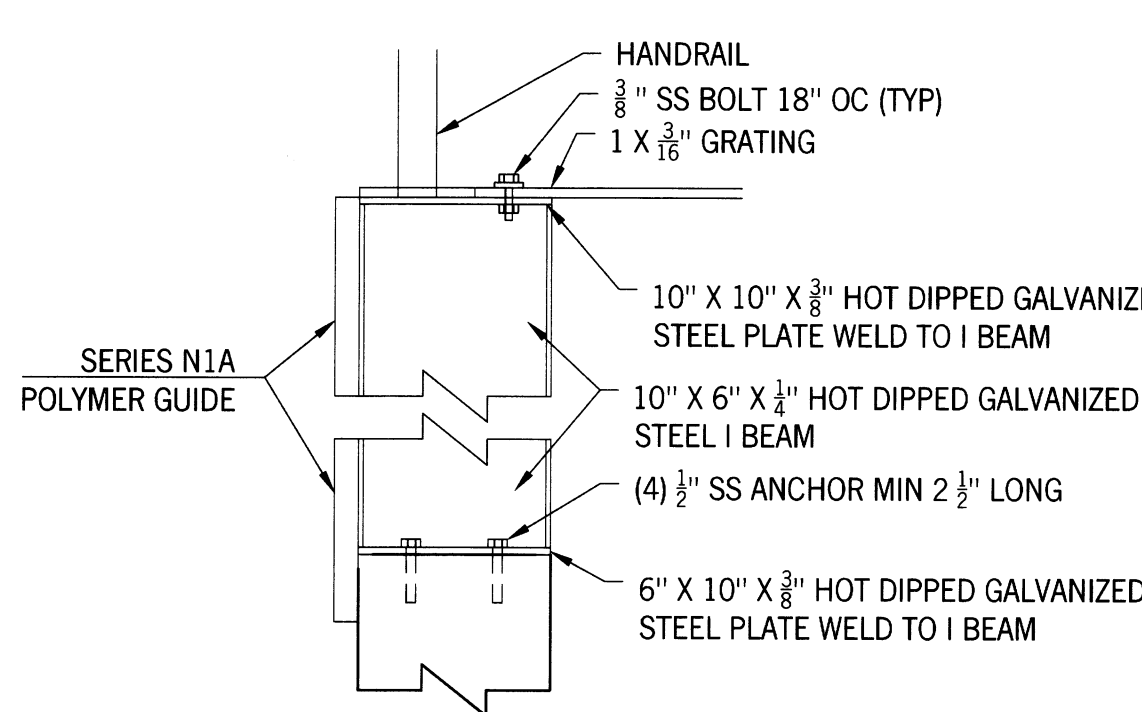
TELEMETRY EQUIPMENT BOX DETAIL
ALL STRUCTURES EXCEPT S-1, S-5 & S-9



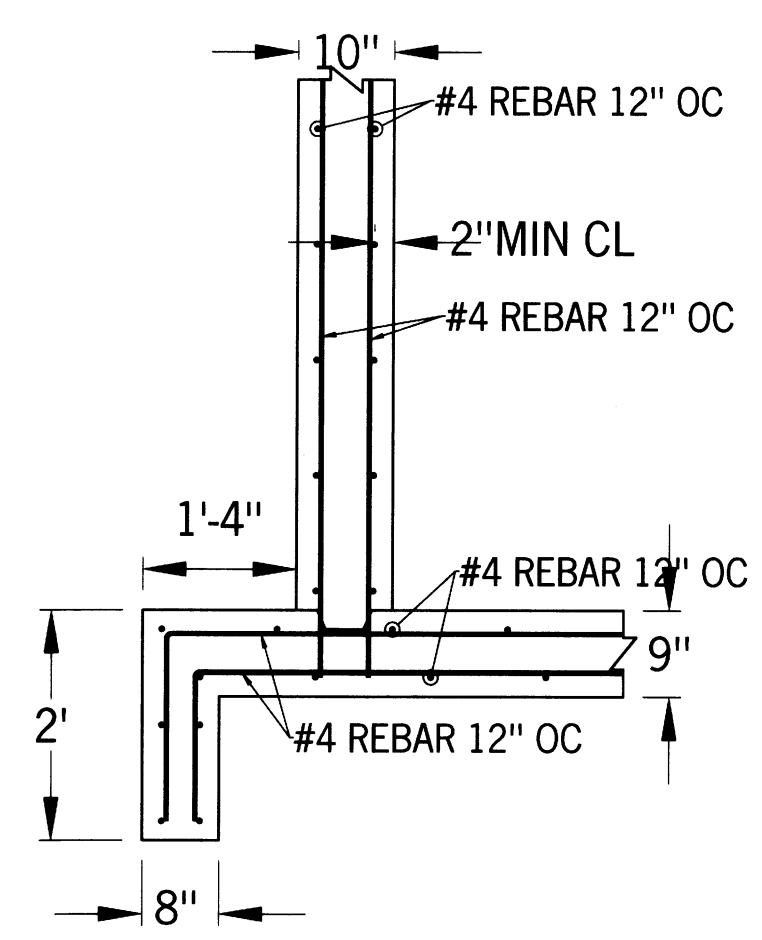
PLAN VIEW TOP



PLAN VIEW BOTTOM



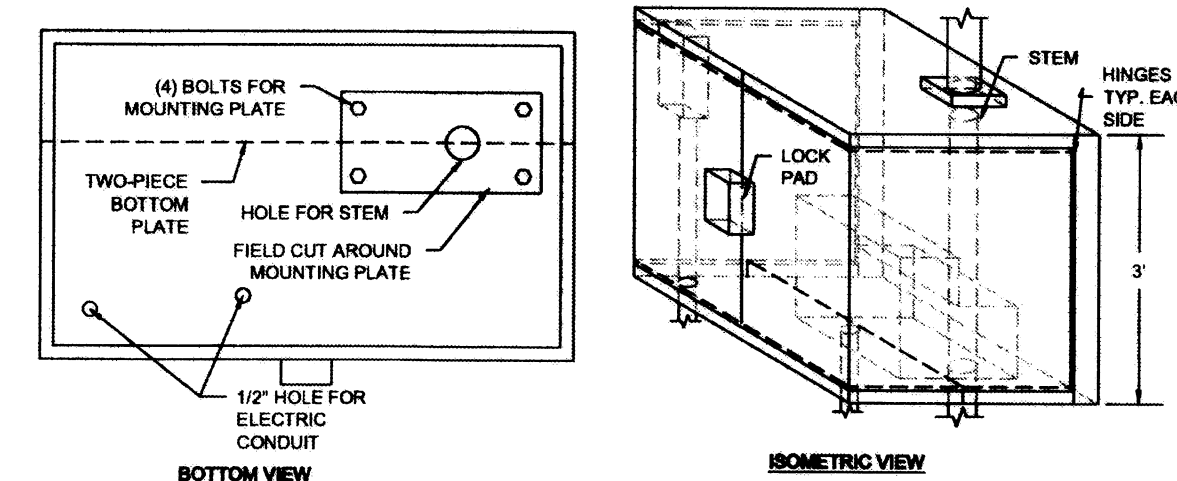
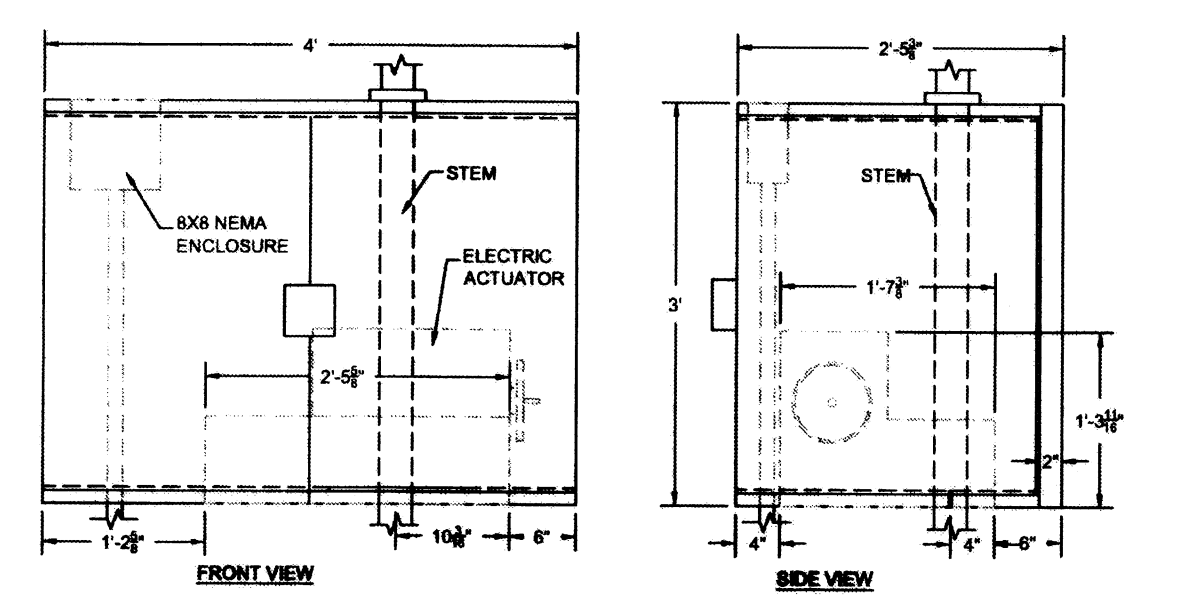
TYPICAL AL PLATE GUIDE CENTER SUPPORT W/OUT WALL



TYPICAL STEEL REINFORCEMENT DETAIL

NOTES:

1. ALL REINFORCING SHALL BE ASTM A615, GRADE 60.
2. REQUIRED SPLICES SHALL BE MINIMUM 12".
3. REBAR SHALL BE BENT AROUND OPENINGS FOR CULVERTS AND GATES.



ACTUATOR ENCLOSURE DETAIL

1. CONTRACTOR TO SUBMIT SHOP DRAWING FOR APPROVAL PRIOR TO FABRICATION.
2. MATERIAL TO BE SS304.
3. DIMENSIONS TO BE COORDINATED WITH ACTUATORS.

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

NOTES AND DETAILS

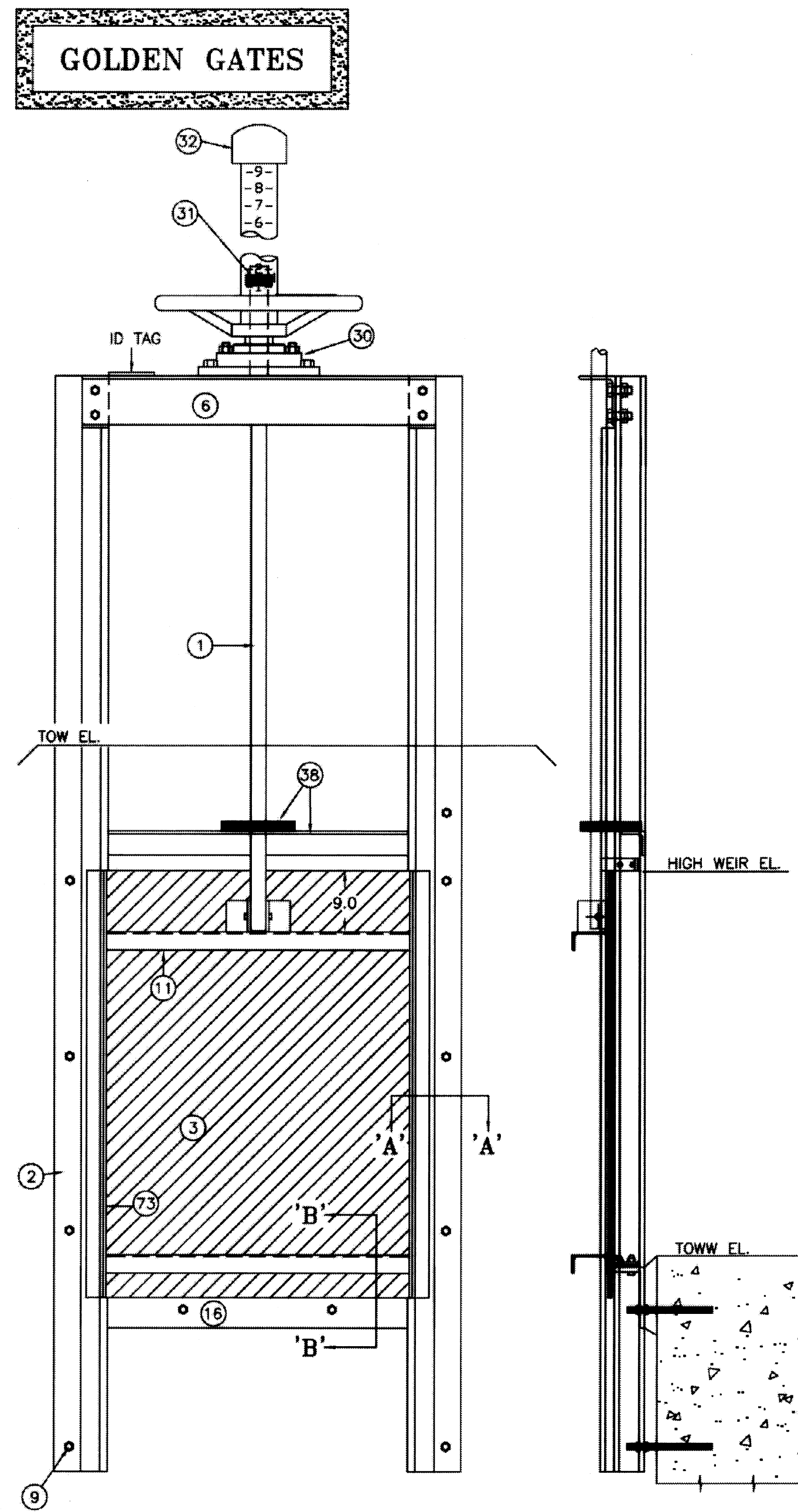
CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

T 44-45S / R 26 E
LEE COUNTY

DATE: Richard H. Thompson, P.E. #46720
R.H.T. Engineering, Inc.
319 Inman Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization # 25852



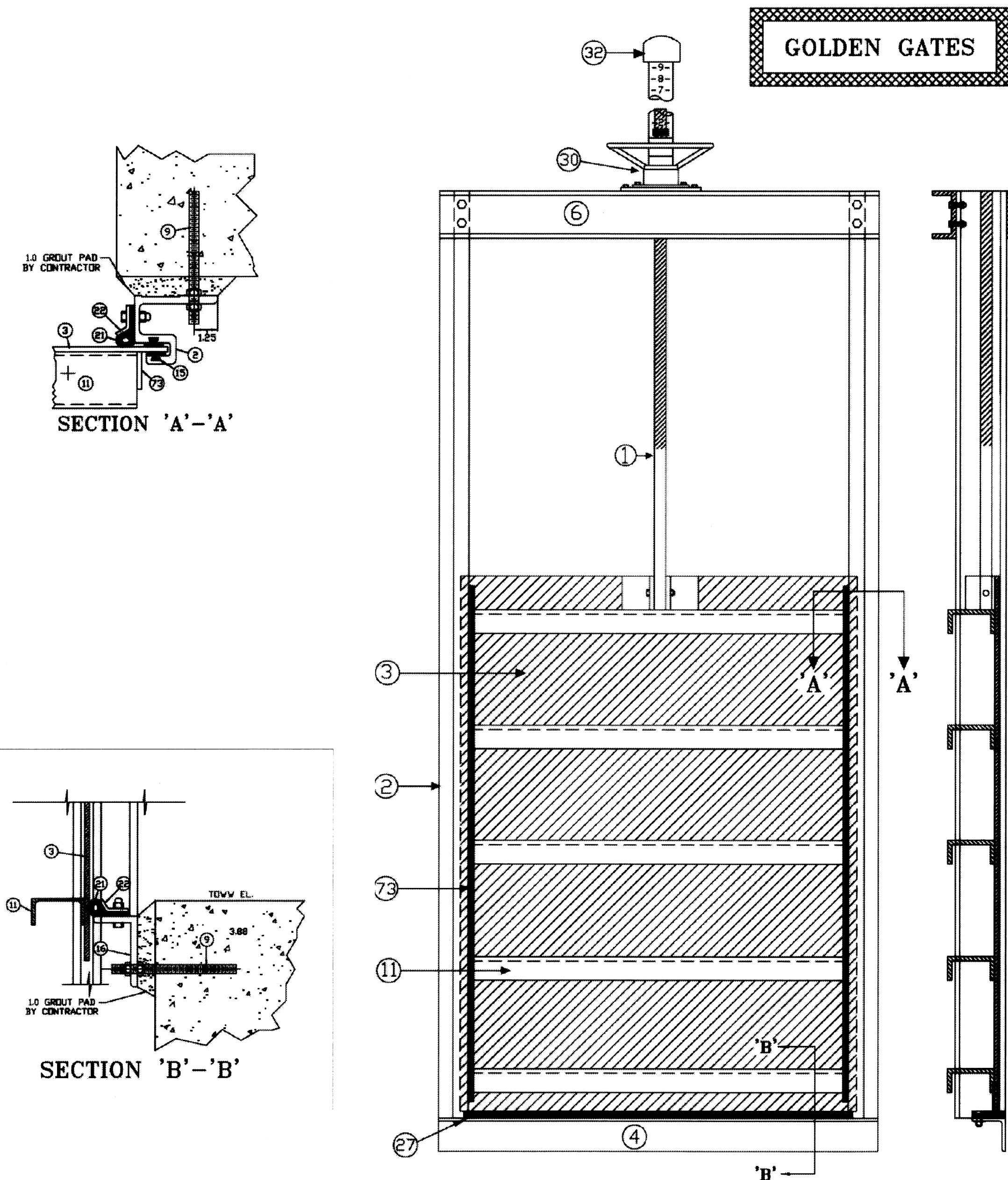
GOLDEN HARVEST GH-60 WEIR GATE



MD GH-60 AL. WEIR GATE PARTS LIST

1	STEM
2	GUIDE RAIL
3	GATE HEAD
6	YOKE
*9	ANCHOR BLT
11	STIFFENER
15	GUIDE BEARING BAR
16	HORIZONTAL SPIGOT
21	P-SEAL
22	P-SEAL RTNR
30	OPERATOR
31	STOP NUTS
32	STEM COVER
38	STEM GUIDE
73	VERT. STIFFENER

GOLDEN HARVEST GH-40 SLIDE GATE



MD GH-40 ALUMINUM SLIDE GATE PARTS LIST

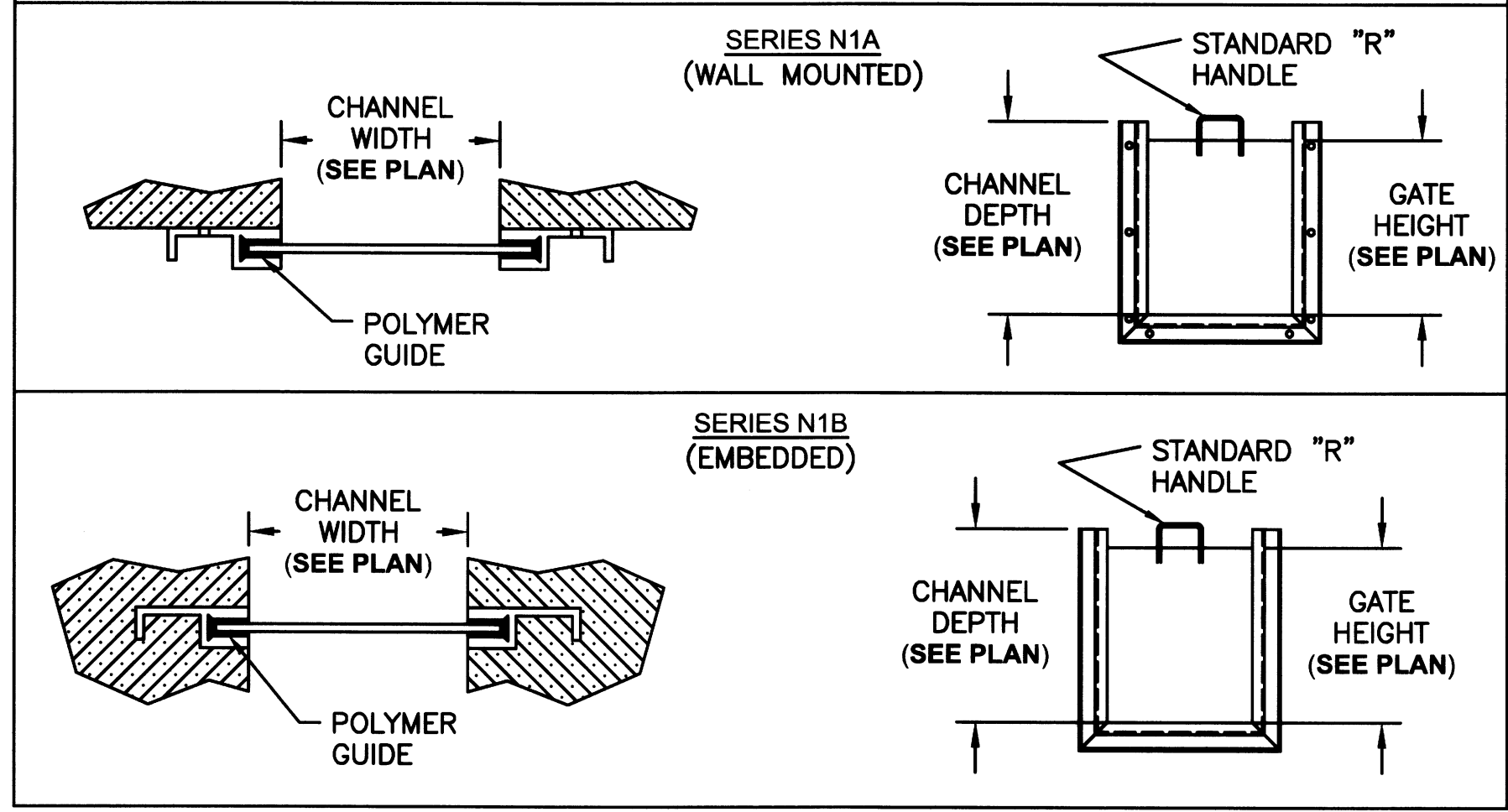
1	STEM
2	GUIDE RAIL
3	GATE HEAD
4	INVERT MEMBER
6	YOKE
11	STIFFENER
15	GUIDE BEARING BAR, UHMW
21	P-SEAL NEOPRENE RUBBER
27	INVERT SEAL NEOPRENE RUBBER
30	OPERATOR
31	STOP NUT
32	STEM COVER
73	VERTICAL STIFFENER

SERIES N1A STOP GATE
OR APPROVED EQUIVALENT

STANDARD FEATURES:

- ONE-PIECE 6061-T6 EXTRUDED ALUMINUM FRAME
- ONE-PIECE, WRAP AROUND POLYMER GUIDE
- 1/4" (7 MM) THICK 6061-T6 ALUMINUM GATE REINFORCED TO DEFLECT NO MORE THAN 1/360th OF SPAN
- LOW COEFFICIENT OF FRICTION
- NON-OZONE DEPLETING BITUMINOUS COATING ON FRAME
- DEEP SEATING FOR OPTIMUM TRACKING
- STANDARD "R" HANDLE OR OPTIONAL "P" HANDLE
- SERIES N1A AND N1C SUPPLIED WITH Ø1/2" (13 MM) MOUNTING HOLES AND S.STL. MOUNTING HARDWARE
- 3 YEAR GUARANTEE

HP
HALLIDAY PRODUCTS
www.HallidayProducts.com
Phone 800-298-1027
Fax 407-298-4534
Sales@HallidayProducts.com



REVISIONS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

NOTES AND DETAILS

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

T 44-45S / R 26 E
LEE COUNTY

DATE:
Richard H. Thompson, P.E., # 46720
R.H.T. Engineering, Inc.
319 Innan Street
Lehigh Acres, FL 33936
(239) 369-8900
Engineering Certificate of Authorization
28852



Lehigh Acres - Municipal Services Improvement District

Telemetry Component Lists

STRUCTURES 1, 5, 9

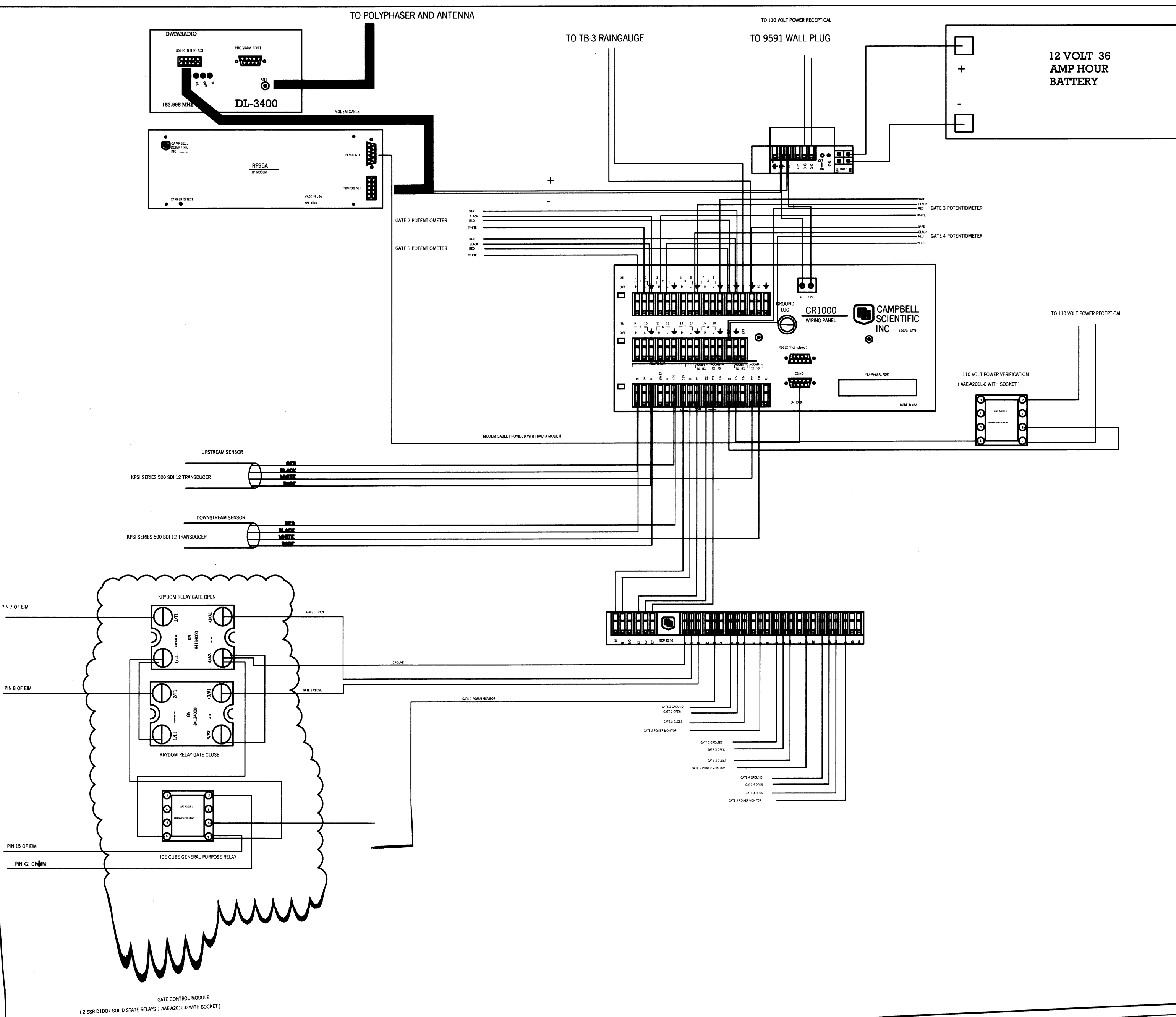
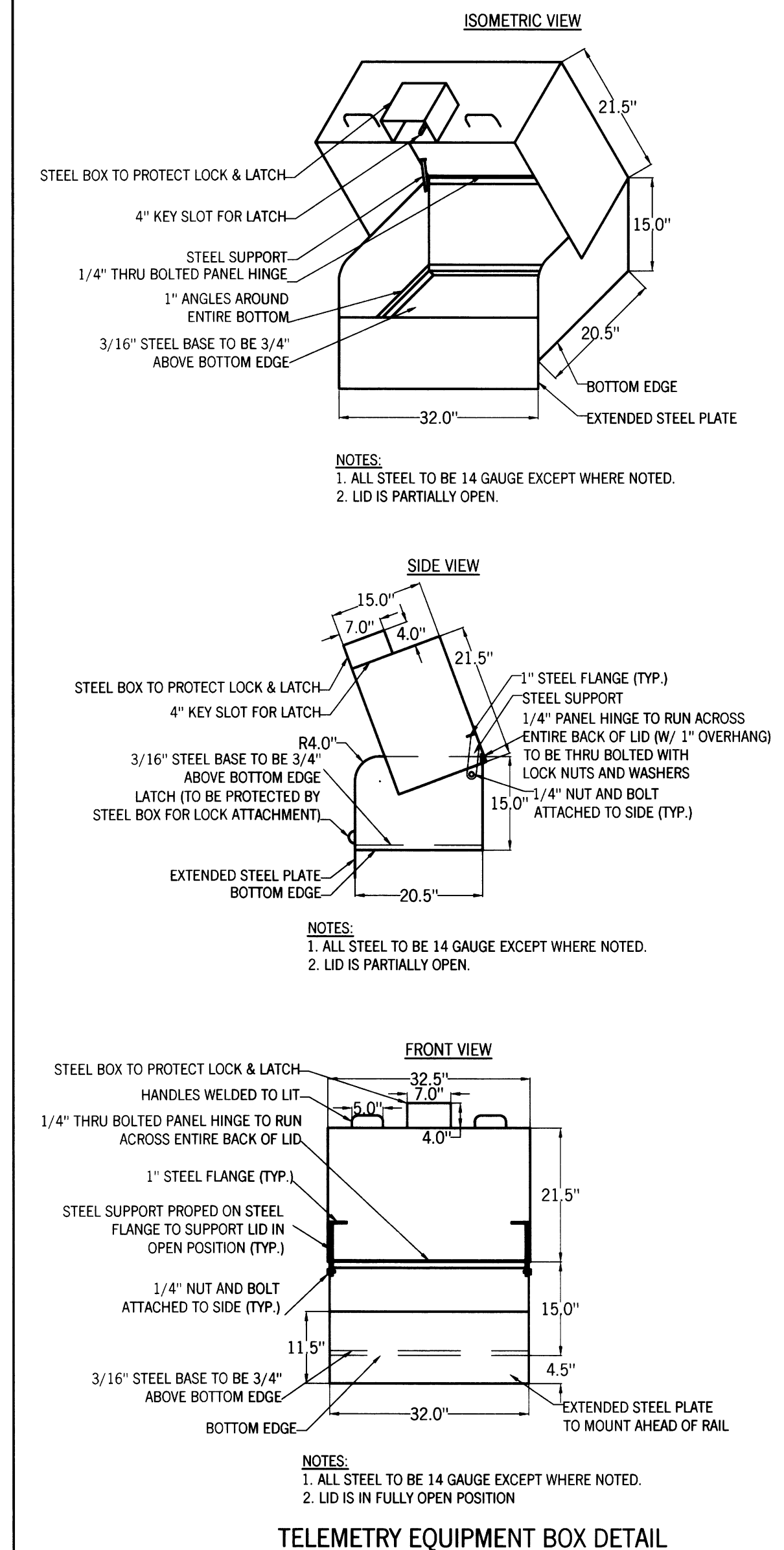
Manufacturer Part #	Item Description	Manufacturer	Structure Totals			Comments
			STR 1	STR 5	STR 9	
CR1000	Measurement and control module with 4 meg flash memory	Campbell Scientific	1	1	1	
SDM I/O 16	16 channel control port expansion module	Campbell Scientific	1	1	1	
RF-450	Telemetry spread spectrum radio	Campbell Scientific	1	1	1	
TB-4	Tipping Bucket Rain Gauge	Hydrologic Services America	1	1	1	W/Bird Guard and Pole Mounting Bracket
BNC/M-LMR 195	18" long cable assembly terminating BNC/M to N/M	Custom	1	1	1	
PTGD1	PCT-DSKL Surge Protector	PolyPhaser	1	1	1	700MHz to 2.7GHz
BGYD890K	PCTEL BGYD890K Yagi Antenna	PCTEL	1	1	1	Tessco SKU:343349
CX/NM.MN.20	Antenna cable N-Male	Custom	1	1	1	Length to fit site
HBL 2715	Hubbell Twist Lock Flanged Inlet Generator Plug	Hubbell	1	1	1	Installed below breaker box on back of meter pedestal
CH100 / 9591	12V Charging Regulator & Wall Charger w/ 120 volt ac transformer	Campbell Scientific	1	1	1	
SLA 1156	12 volt dc 35 amp hour battery with hardware	Interstate Batteries	1	1	1	Sealed Lead Acid
500-100-00010	Water Level Sensor - KPSI 500 pressure transducer standard open face screen 0.05% accuracy, CR10x interface with SDI-L2 output cable	KPSI	2	2	2	
0424ER	Water Level Sensor Cable - KPSI polyurethane-jacketed vent cable 4 wire sold per ft	KPSI	50'	50'	50'	2 separate cables at 25' each
SERIES 2000 EIM	EIM Actuator - p/n based on specific gate torque and thrust. Internal LOK gate position potentiometer, local visual gate position indicator, local front panel selectable manual/ auto operator, manual flywheel with socket adapter for manual control	EIM	2	3	4	
GCM	Gate Control Module Panel for remote control of gate structure. Consists of SSR D1007 (2 10 amp 24-230 VAC to 3-32 VDC Solid State relay and 1 AAE-A201L-0, socket)	Custom	2	3	4	
PGM	Gate AC power Monitor consisting of AAE-A201L-0, Socket)	Custom	2	3	4	
MPM	Main AC power Monitor consisting of AAE-A201L-0, Socket)	Custom	1	1	1	
5133164	8"x 8"x 6" NEMA 6P Enclosure for Gate Control Modules	Cantex	2	3	4	Installed in Actuator Boxes
5133712	8"x 8"x 4" NEMA 6P Enclosure for Water Level Sensors	Cantex	2	2	2	Installed in Platform Equipment Boxes
S.S. Actuator Boxes	Front & Side Hinged Stainless Steel Actuator Boxes	Custom	2	3	4	See Existing Harris Marsh Boxes for Details
Steel Weir Equip. Box	Powder Coated (white) Steel Enclosure 32"x 21.5"x 15"	Custom	1	1	1	Installed on Weir Railing
Steel Platform Equip. Box	Powder Coated (white) Steel Enclosure 12"x 12"x 12"	Custom	2	2	2	One installed at the end of each telemetry platform
VJ1816 Weir Equip. Box	18"x 16"x 10" NEMA 6P Enclosure for Radio & Equipment	Vynckler	1	1	1	Installed in Steel Weir Equipment Box
* These items are custom made and the above part numbers are for reference from Locher Environmental. If a contractor so chooses to make his own they must perform the above stated tasks.						

Lehigh Acres - Municipal Services Improvement District

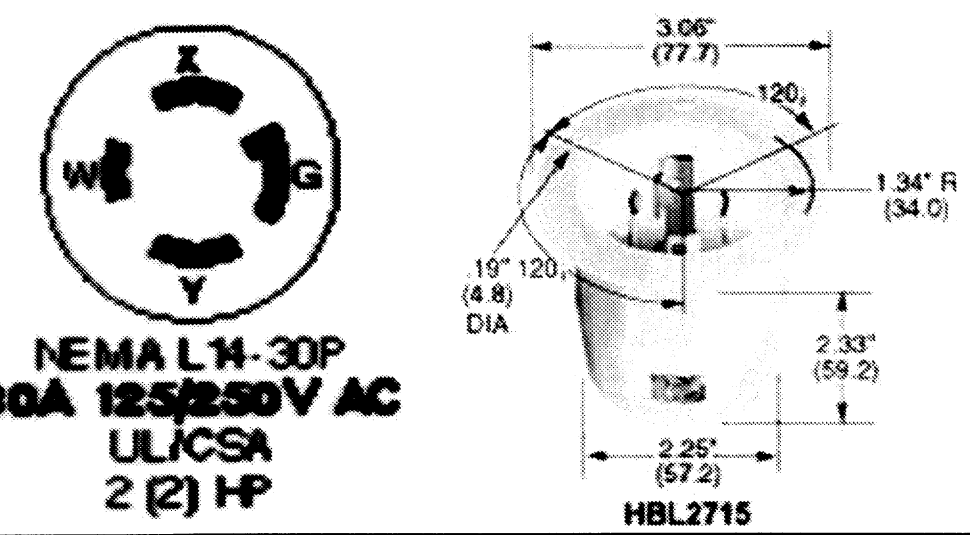
Telemetry Component Lists

ALL STRUCTURES EXCEPT 1, 5, 9

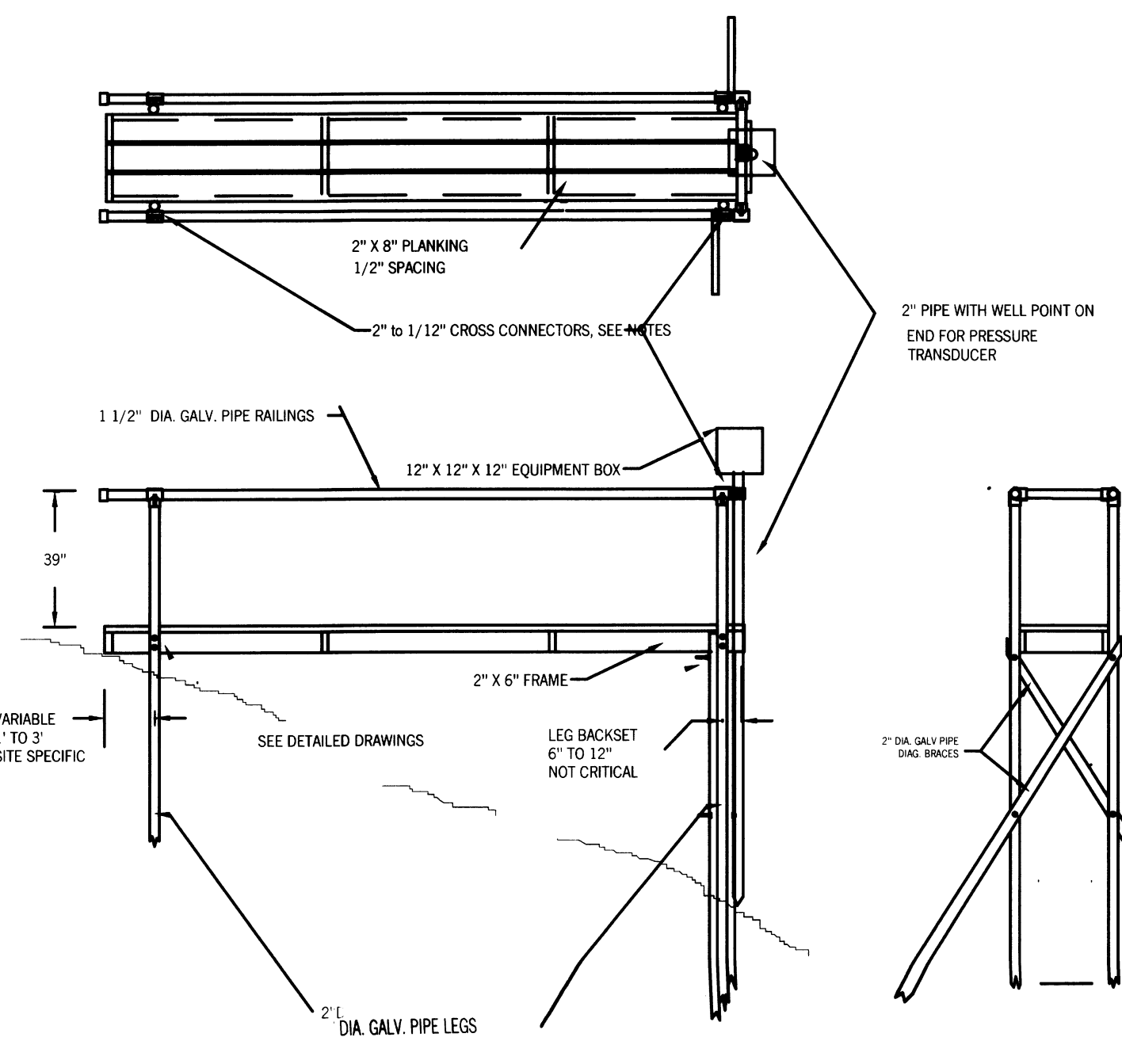
Manufacturer Part #	Item Description	Manufacturer	Each Site Totals			Comments
			STR 1	STR 5	STR 9	
CR200X	Measurement and control module	Campbell Scientific	1			
RF-450	Telemetry spread spectrum radio	Campbell Scientific	1			
BNC/M-LMR 195	18" long cable assembly terminating BNC/M to N/M	Custom	1			
PTGD1	PCT-DSKL Surge Protector	PolyPhaser	1			700MHz to 2.7GHz
BGYD890K	PCTEL BGYD890K Yagi Antenna	PCTEL	1			Tessco SKU:343349
CX/NM.MN.20	Antenna cable N-Male	Custom	1			Length to fit site
CH100 / 9591	12V Charging Regulator & Wall Charger w/ 120 volt ac transformer	Campbell Scientific	1			each
BSL 1079	12 volt dc 8.0 amp hour battery with hardware	Interstate Batteries	1			Sealed Lead Acid - UB1270
0424ER	Water Level Sensor Cable - KPSI polyurethane-jacketed vent cable 4 wire sold per ft	KPSI	25'			1 cable at 25' each
Steel Telem. Enclosure Box	Powder Coated (white) Steel Enclosure 32"x 21.5"x 15"	Custom	1			Installed above Hand Railing on Structure
VJ1816 Telem. Equip. Box	18"x 16"x 10" NEMA 6P Enclosure for Radio & Equipment	Vynckler	1			Installed inside Telemetry Enclosure Box
* These items are custom made and the above part numbers are for reference from Locher Environmental. If a contractor so chooses to make his own they must perform the above stated tasks.						



HUBBEL GENERATOR PLUG OR APPROVED EQUIVALENT



Ground Screw Material #10-32 Brass (green finish) Multi-drive
 Body Holding Screw Material Steel, zinc plated Multi-drive Body Contact Carrier Material
 Natural White Nylon Flanged Casing Material Natural White Nylon
 Mounting Screw Material Nickel-plated Brass Round head screws
 Ratings Molded into face
 Catalog No. Permanently ink marked on casing
 Dielectric Voltage Withstand 2,000V minimum.
 Current Interrupting Certified for current interrupting at full rated current.
 Temperature Rise Max 30 C temperature rise at full rated current after 50 cycles of overload at 150% of rated current at a power factor of .75.
 Terminal Accommodation 30A #10 AWG
 Terminal Identification Terminals identified in accordance with UL 498 (X, Y, Z, White, Green)
 Flammability HB or better per UL 94 or CSA 22.2 No. 0.6
 Operating Temperatures Maximum Continuous 75 C Minimum -40 C (w/o impact)
 Listings FED SPEC UL/CSA
 UPC Number 78358503819
 Weight in LBS 0.25



- NOTES:
- WALKWAY LENGTH IS DETERMINED BY SITE REQUIREMENTS. SEE MAIN SITE PLANS / LAYOUT
 - SPAN BETWEEN LEG SETS NOT TO EXCEED 10' FOR LONG, MULTIPLE FRAME WALKWAYS. LEG SETS ARE ADDED AT THE END OF EACH FRAME TO FACILITATE CONSTRUCTION. SEE SOP.
 - THE PIPE LEGS CAN BE DRIVEN EITHER MANUALLY OR HYDRAULICALLY. DRIVE TO REFUSAL, ADDING COUPLINGS AND LENGTHS AS REQUIRED. IN SPECIAL CASES WHERE EXTREMELY DEEP MUD OR SAND IS ENCOUNTERED, AN INSERTION NEEDS TO OBTAIN THE NECESSARY STABILITY CAN BE DETERMINED BY A QUALIFIED ENGINEER.
 - CROSS CONNECTORS ARE "SPEED RAIL" 2" to 1 1/2" ALUMINUM OFFSET CROSS #10
 - ALL PIPE IS THICK WALL RIGID GALVANIZED (SCHD 80)
 - ALL NAILS ARE HOT DIPPED GALVANIZED
 - ALL HARDWARE, INCLUDING THE ALL THREAD, IS STAINLESS STEEL
 - IF THE DISTANCE BETWEEN THE WALK LEVEL AND CANAL BOTTOM LEVEL EXCEEDS 8', A LOWER STILLING WELL BRACE IS REQUIRED
 - USE 1/2" HOT DIP GALV. NAILS FOR FRAMING
USE 1/2" HOT DIP GALV. "RING SHANK" NAILS FOR PLANKING
 - INSTALLATION MUST BE LEVEL AND PLUMB

SHEET 55/56

DRAWN BY: RHT

CHECKED BY: RHT

APPROVED BY: RHT

DATE: SEPT 2015

REVISIONS

TELEMETRY DETAILS

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

T 44-465 / R 26 E LEE COUNTY

DATE: RICHARD H. THOMPSON, P.E. # 46720

R.H.T. Engineering, Inc.
 319 Inman Street
 Lehigh Acres, FL 33956
 (239) 369-8900
 Engineering Certificate of Authorization # 25852

LEHIGH ACRES MUNICIPAL SERVICES IMPROVEMENT DISTRICT

WALKWAY CONSTRUCTION

WOODEN WALK WITH PIPE LEGS AND RAILING

SHT 1 OF 2

DRAWN BY:
RHT

CHECKED BY:
RHT

APPROVED BY:
RHT

DATE:
SEPT 2015

REVISIONS	

SOUTHWEST LEHIGH WEIRS PROJECT (A.B.S.O.R.B.)

POLLUTION PREVENTION PLAN

CLIENT: LEHIGH ACRES - MUNICIPAL SERVICES IMPROVEMENT DISTRICT

T 44-46S / R 26 E
LEE COUNTY

DATE: # 46720

Richard H. Thompson, P.E.

R.H.T. Engineering, Inc.
319 Timan Street
Lafayette, LA 70506
(225) 369-8900

Engineering Certificate of Authorization # 2882



WASTE, SANITARY, AND SEPTIC TANK DISPOSAL CONTROLS

SOLID WASTE PRODUCED ON-SITE SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS. SOLID WASTE IS TO BE HAULED OFF-SITE AND DISPOSED OF AT A LICENSED LAND FILL. NO SOLID MATERIALS INCLUDING BUILDING MATERIALS SHALL BE DISCARDED INTO SURFACE WATERS. SPECIFIC LOCATIONS ON-SITE SHALL BE DESIGNATED FOR WASTE RECEIPTS AND A COLLECTION SCHEDULE MUST BE ESTABLISHED. SPECIAL PROVISIONS SHALL BE MADE FOR THE COLLECTION, STORAGE, AND DISPOSAL OF TOXIC AND HAZARDOUS SUBSTANCES IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL HEALTH AND SAFETY REGULATIONS.

WASTE COLLECTION AREAS ARE TO BE MAINTAINED AND ARE TO BE LOCATED IN LOCATIONS LEAST LIKELY TO BE AFFECTED BY CONCENTRATED STORMWATER RUNOFF.

CONTRACTOR SHALL ENSURE AND DEMONSTRATE COMPLIANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS DURING WASTE, SANITARY, AND SEPTIC TANK DISPOSAL.

ADEQUATE SANITARY FACILITIES SHALL BE PROVIDED ON SITE FOR WORKERS IN ACCORDANCE WITH APPLICABLE HEALTH REGULATIONS.

PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION

1. EROSION CONTROL PLAN - THE PERIMETER CONTROLS FOR THE SITE WILL BE INSTALLED AFTER THE CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF THE MEASURE, BUT BEFORE THE CLEARING AND GRUBBING FOR THE REMAINING PORTIONS OF THE SITE. PERIMETER CONTROLS WILL BE ACTIVELY MAINTAINED UNTIL FINAL STABILIZATION OF THOSE PORTIONS OF THE SITE UPWARD OF THE PERIMETER CONTROL. TEMPORARY PERIMETER CONTROLS WILL BE REMOVED AFTER FINAL STABILIZATION. ALL CONTROLS SHALL BE CONSISTENT WITH THE REQUIREMENTS SET FORTH IN THE STATE WATER POLICY OF FLORIDA (CHAPTER 17-40, FLORIDA ADMINISTRATIVE CODE), THE APPLICABLE STORM WATER PERMITTING REQUIREMENTS OF THE FDEP OR SWMD, AND THE GUIDELINES CONTAINED IN THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO SOUND LAND AND WATER MANAGEMENT (FDER, 1998) AND ANY SUBSEQUENT AMENDMENTS. THE DESCRIPTION AND IMPLEMENTATION OF CONTROLS SHALL ADDRESS THE FOLLOWING MINIMUM COMPONENTS:

2. MAINTENANCE - THE CONTRACTOR SHALL ENSURE THE TIMELY MAINTENANCE OF VEGETATION, EROSION, AND SEDIMENT CONTROL MEASURES AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THE SITE PLAN IN GOOD AND EFFECTIVE OPERATING CONDITION.

3. INSPECTIONS - QUALIFIED PERSONNEL PROVIDED BY THE CONTRACTOR SHALL INSPECT ALL POINTS OF DISCHARGE INTO THE MUNICIPAL SEPARATE STORM SEWER SYSTEM AND ALL DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED. AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, STORM WATER MANAGEMENT SYSTEMS, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.25 INCHES OR GREATER. WHERE SITES HAVE BEEN FINALLY STABILIZED OR DURING SEASONAL AND PERIODS IN AREAS WITH AN AVERAGE ANNUAL RAINFALL OF 6 TO 10 INCHES AND SEMI-ARID AREAS (AREAS WITH AN AVERAGE RAINFALL OF 10 TO 20 INCHES) SUCH INSPECTION SHALL BE CONDUCTED AT LEAST **ONCE EVERY MONTH**.

A. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR POLLUTANTS ENTERING THE STORM WATER MANAGEMENT SYSTEM. THE STORM WATER MANAGEMENT SYSTEM AND EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL AND STORM WATER MANAGEMENT MEASURES ARE EFFECTIVE. IN MEETING THE PERFORMANCE STANDARDS SET FORTH IN STATE WATER POLICY (CHAPTER 17.40 F.A.C.) AND THE APPLICABLE STORM WATER PERMITTING REGULATIONS OF THE FDEP OR SWMD. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.

B. BASED ON THE RESULTS OF THE INSPECTION, THE SITE DESCRIPTION IDENTIFIED IN THE PLAN IN ACCORDANCE WITH PARAGRAPH IV.D.1 OF THIS PERMIT AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THE PLAN IN ACCORDANCE WITH PARAGRAPH IV.D.2 OF THIS PERMIT SHALL BE REVISED AS APPROPRIATE BUT IN NO CASE LATER THAN 7 CALENDAR DAYS FOLLOWING THE INSPECTION. SUCH MODIFICATIONS SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE PLAN WITHIN 7 CALENDAR DAYS FOLLOWING THE INSPECTION.

C. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE STORMWATER POLLUTION PREVENTION PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PARAGRAPH IV.D.4B OF THE PERMIT SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED. SUCH REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE. WHERE A REPORT DOES NOT IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN AND THIS PERMIT. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI.G OF THIS PERMIT.

4. RETENTION OF RECORDS

A. THE CONTRACTOR SHALL RETAIN COPIES OF STORM WATER POLLUTION PREVENTION PLANS AND ALL REPORTS REQUIRED BY THIS PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT, FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE DIRECTOR AT ANY TIME.

B. THE CONTRACTOR SHALL RETAIN A COPY OF THE STORM WATER POLLUTION PREVENTION REQUIRED BY THIS PERMIT AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

C. ADDRESSES. EXCEPT FOR THE SUBMITTAL OF NOIS (SEE PART II.C. OF THIS PERMIT), ALL WRITTEN CORRESPONDENCE CONCERNING DISCHARGES IN ANY STATE, INDIAN LAND, OR FROM ANY FEDERAL FACILITY COVERED UNDER THIS PERMIT AND DIRECTED TO THE U.S. ENVIRONMENTAL PROTECTION AGENCY, INCLUDING THE SUBMITTAL OF INDIVIDUAL PERMIT APPLICATIONS, SHALL BE SENT TO THE ADDRESS OF THE APPROPRIATE REGIONAL OFFICE LISTED BELOW:

UNITED STATES EPA REGION IV, WATER MANAGEMENT DIVISION, (FPE-3)
STORM WATER STAFF, 345 COURTLAND STREET N.E., ATLANTA, GA 30365

EROSION AND SEDIMENT CONTROLS

STABILIZATION PRACTICES:
ACCEPTABLE PRACTICES INCLUDE TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, GEOTEXTILES, SOD STABILIZATION, VEGETATIVE BUFFER STRIPS, FENCE PROTECTION OF TREES, PRESERVATION OF MATURE VEGETATION. STABILIZATION SHALL BE INITIATED NO MORE THAN 14 DAYS IN AREAS WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED.
CONTRACTOR SHALL MAINTAIN A RECORD OF DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, WHEN CONSTRUCTION TEMPORARILY OR PERMANENTLY CEASES AND WHEN STABILIZATION IS INITIATED AND COMPLETED

STRUCTURAL PRACTICES:
ACCEPTABLE STRUCTURAL PRACTICES INCLUDE SILT FENCES, HAY BALES, EARTH DIKES, DRAINAGE SWALES, SEDIMENT TRAPS, CHECK DAMS, TURBIDITY BARRIERS, SUBSURFACE DRAINAGE, PIPE SLOPE DRAINAGE, LEVEL SPREADERS, STORM DRAIN INLET PROTECTION, ROCK OUTLET PROTECTION, REINFORCED SOIL RETAINING SYSTEMS, CABIONS, AND TEMPORARY OR PERMANENT SEDIMENT BASINS.

STRUCTURAL PRACTICES SHOULD BE PLACED ON UPLAND SOILS UNLESS SPECIFIED OTHERWISE BY THE FLORIDA WETLAND RESOURCE OR ENVIRONMENTAL RESOURCE PERMIT. FOR DRAINAGE LOCATIONS SERVING MORE THAN 5 ACRES OF DISTURBED LAND AT ONE TIME, A SEDIMENT BASIN PROVIDING 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED OR EQUIVALENT MEASURE MUST BE PROVIDED UNTIL FINAL STABILIZATION OF THE SITE. FOR DRAINAGE LOCATIONS SERVING LESS THAN 5 ACRES OF DISTURBED LAND AT ONE TIME, SEDIMENT BASINS OR TRAPS SHOULD BE USED. SEDIMENT BASINS SHALL BE INSTALLED IN LOCATION OF PERMANENT STORM WATER RETENTION FACILITIES IF POSSIBLE. WHEN PERMANENT STORM WATER RETENTION PONDS ARE TO BE USED AS TEMPORARY SEDIMENT BASINS ACCUMULATED SEDIMENTS MUST BE COMPLETELY REMOVED AND EXCAVATION FOR TEMPORARY SEDIMENT BASIN SHALL NOT EXCEED INCHES ABOVE THE BOTTOM ELEVATION OF THE PERMANENT STORM WATER POND. SILT FENCES OR EQUIVALENT SEDIMENT CONTROLS ARE REQUIRED FOR ALL SIDE SLOPE AND DOWN SLOPE BOUNDARIES OF THE CONSTRUCTION AREA.

STORM DRAIN INLETS SHALL BE PROTECTED FROM SEDIMENT LOADING DURING THE COURSE OF CONSTRUCTION BY THE USE OF SEDIMENT FILTERS OR AN EXCAVATED IMPOUNDING AREA PROPERLY INSTALLED AND MAINTAINED AROUND THE STORM DRAIN DROP OR CURB INLET. INLET PROTECTION SHALL REMAIN IN PLACE UNTIL PERMANENT STABILIZATION OF DISTURBED AREA TO KEEP POLLUTANTS FROM ENTERING THE CONVEYANCE SYSTEM.

EROSION CONTROL DEVICES TO BE INSTALLED IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, JANUARY 2000 (OR LATEST EDITION).

OFF-SITE VEHICLE TRACKING OF SEDIMENTS CONTROLS

OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND GENERATION OF DUST SHALL BE MINIMIZED. CALCIUM CHLORIDE, OILS OR OTHER CHEMICAL DUST CONTROL AGENTS SHOULD NOT BE USED ON CONSTRUCTION ROADS. AREAS SHALL BE PERIODICALLY WATERED TO MINIMIZE DUST.

DEMOLITION CONTROLS

CALCIUM CHLORIDE, OILS OR OTHER CHEMICAL DUST CONTROL AGENTS SHOULD NOT BE USED TO CONTROL DUST. AREAS SHALL BE PERIODICALLY WATERED TO MINIMIZE THE TRANSPORT OF AIRBORNE POLLUTANTS. WATER OR SLURRY USED TO CONTROL DUST MUST BE RETAINED ON-SITE AND NOT ALLOWED TO RUN INTO SURFACE WATERS OR STORM WATER CONVEYANCE SYSTEMS.

FERTILIZER AND PESTICIDE CONTROLS

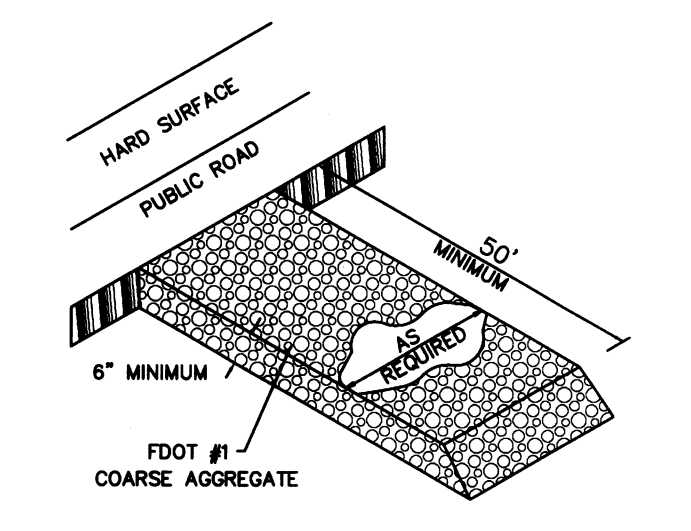
FERTILIZERS:
A. ALL FERTILIZERS SHALL BE STORED IN A DRY STORAGE AREA PROTECTED FROM RAINFALL AND PONDING.
B. NO FERTILIZER CONTAINING IN EXCESS OF 2% PHOSPHATE/PHOSPHORUS (P2O5) PER GUARANTEED ANALYSIS LABEL (AS DEFINED BY CHAPTER 576, FLORIDA STATUTES) SHALL BE APPLIED TO TURFGRASS, PASTURES, PADDocks, OR USED IN NURSERIES UNLESS JUSTIFIED BY A SOIL TEST.
C. FERTILIZER CONTAINING IN EXCESS OF 2% PHOSPHATE/PHOSPHORUS (P2O5) PER GUARANTEED ANALYSIS LABEL SHALL NOT BE APPLIED WITHIN 5 FEET OF THE EDGE OF WATER OR WITHIN 5 FEET OF A DRAINAGE FACILITY.
D. ALL FERTILIZER SHALL BE APPLIED SUCH THAT SPREADING OF FERTILIZER ON ALL IMPERVIOUS SURFACES IS MINIMIZED.
E. LIQUID FERTILIZERS CONTAINING IN EXCESS OF 2% PHOSPHATE/PHOSPHORUS (P2O5) PER GUARANTEED ANALYSIS LABEL SHALL NOT BE APPLIED THROUGH AN IRRIGATION SYSTEM WITHIN 10 FEET OF THE EDGE OF WATER OR WITHIN 10 FEET OF A DRAINAGE FACILITY.
F. LIQUID FERTILIZERS CONTAINING IN EXCESS OF 2% PHOSPHATE/PHOSPHORUS (P2O5) PER GUARANTEED ANALYSIS LABEL SHALL NOT BE APPLIED THROUGH HIGH OR MEDIUM MIST APPLICATION OR DIRECTED SPRAY APPLICATION WITHIN 10 FEET OF THE EDGE OF WATER OR WITHIN 10 FEET OF A DRAINAGE FACILITY.

PESTICIDES:
THE USE OF PESTICIDES, FUNGICIDES, OR HERBICIDES IS LIMITED TO PRODUCTS THAT MEET THE FOLLOWING CRITERIA:
A. MUST BE CONSISTENT WITH THE USDA-NRCS SOIL RATING FOR SELECTING PESTICIDES.
B. MUST HAVE THE MINIMUM POTENTIAL FOR LEACHING INTO GROUNDWATER OR LOSS FROM RUNOFF.
C. PRODUCTS MUST BE EPA APPROVED.
D. THE HALF-LIFE OF PRODUCTS USED SHALL NOT EXCEED SEVENTY (70) DAYS

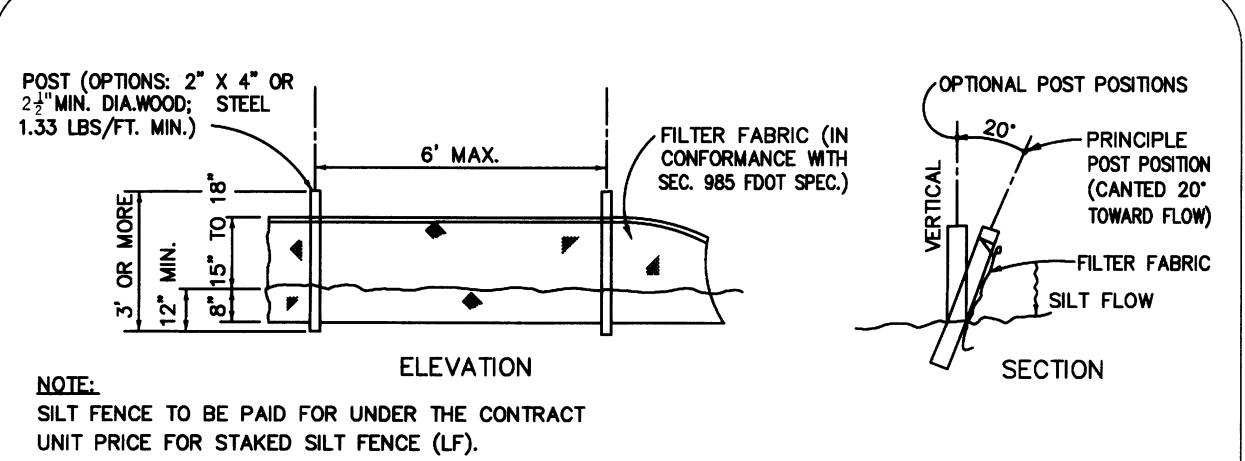
GENERAL NOTES

- PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITY, APPROPRIATE EROSION CONTROL DEVICES SHALL BE INSTALLED TO CONTROL AND REDUCE SOIL EROSION AND SEDIMENT TRANSPORT TO OFF SITE AREAS. THE CONTRACTOR SHALL MAINTAIN THESE DEVICES THROUGHOUT THE DURATION OF CONSTRUCTION. ALL DEVICES SHALL REMAIN IN PLACE UNTIL THE SURROUNDING AREAS ARE ESTABLISHED.
- THE FOLLOWING MINIMUM REQUIREMENTS ARE RECOMMENDED: (REFERENCE FLORIDA DEVELOPMENT MANUAL, FDER, PPS 6-301 TO 6-500).
 - A) BMP 1.01 - TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
 - B) BMP 1.05 - STRAW BALE BARRIER
 - C) BMP 1.06 - SILT FENCE
 - D) BMP 1.08 - STORM INLET DRAIN PROTECTION
- THESE BEST MANAGEMENT PRACTICES (BMP) ARE TYPICAL OF THE REQUIREMENTS FOR SOIL EROSION CONTROL PER DIVISION 3.7 OF THE COLLIER COUNTY LAND DEVELOPMENT CODE. THEY MAY NOT CONSTITUTE COMPLETE REQUIREMENTS FOR COMPLIANCE WITH REGULATORY AGENCIES AND SPECIFIC PERMIT CONDITIONS.

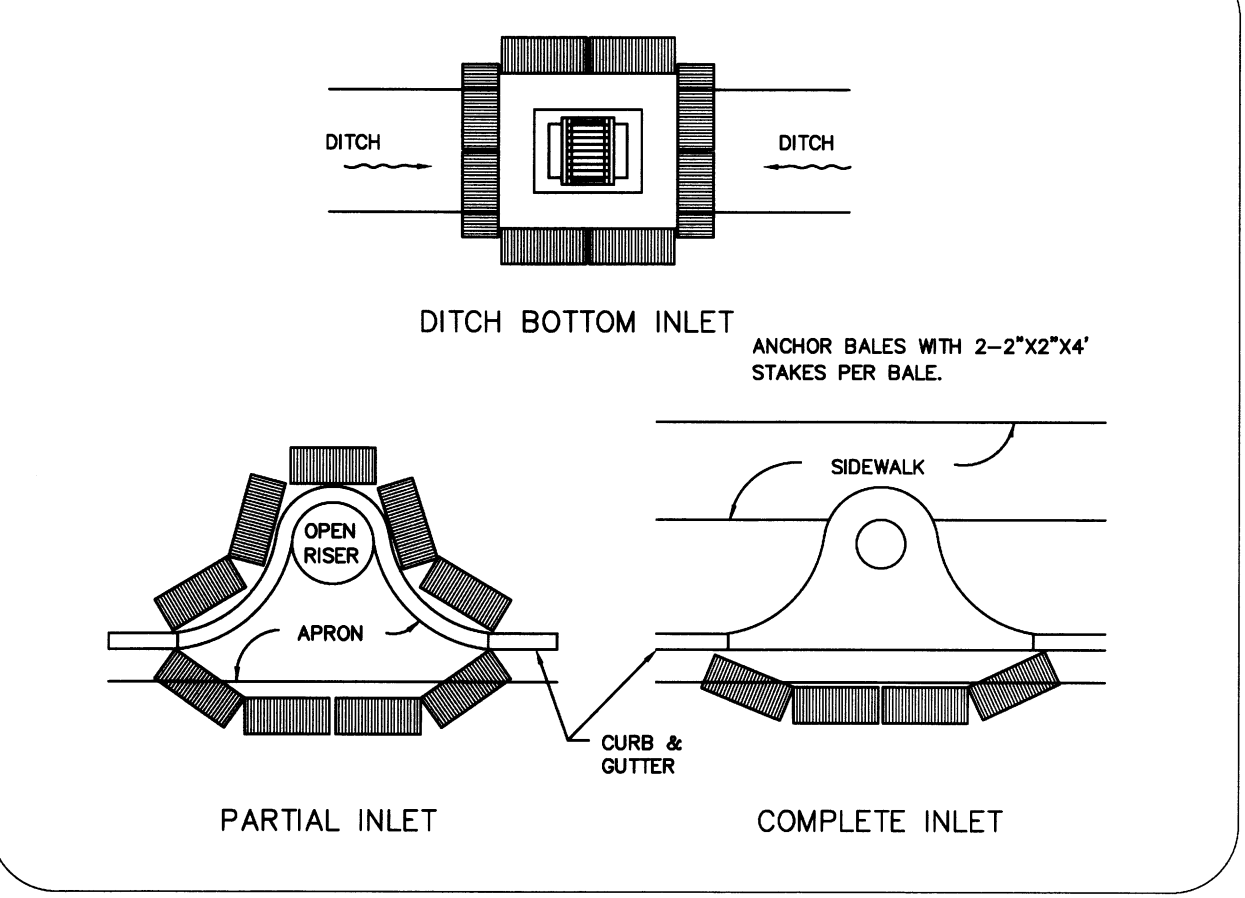
GRAVEL CONSTRUCTION ENTRANCE



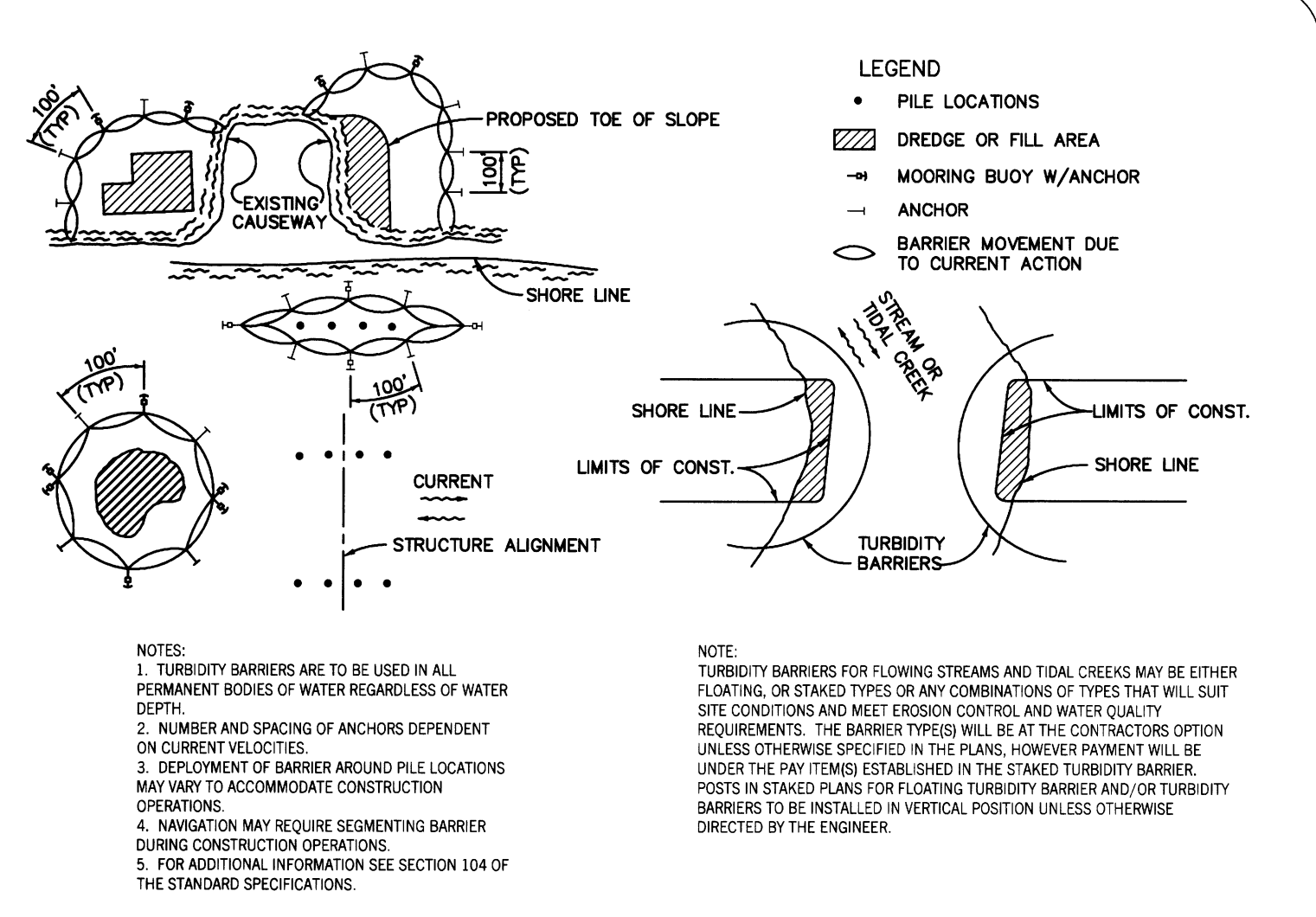
SILT FENCE



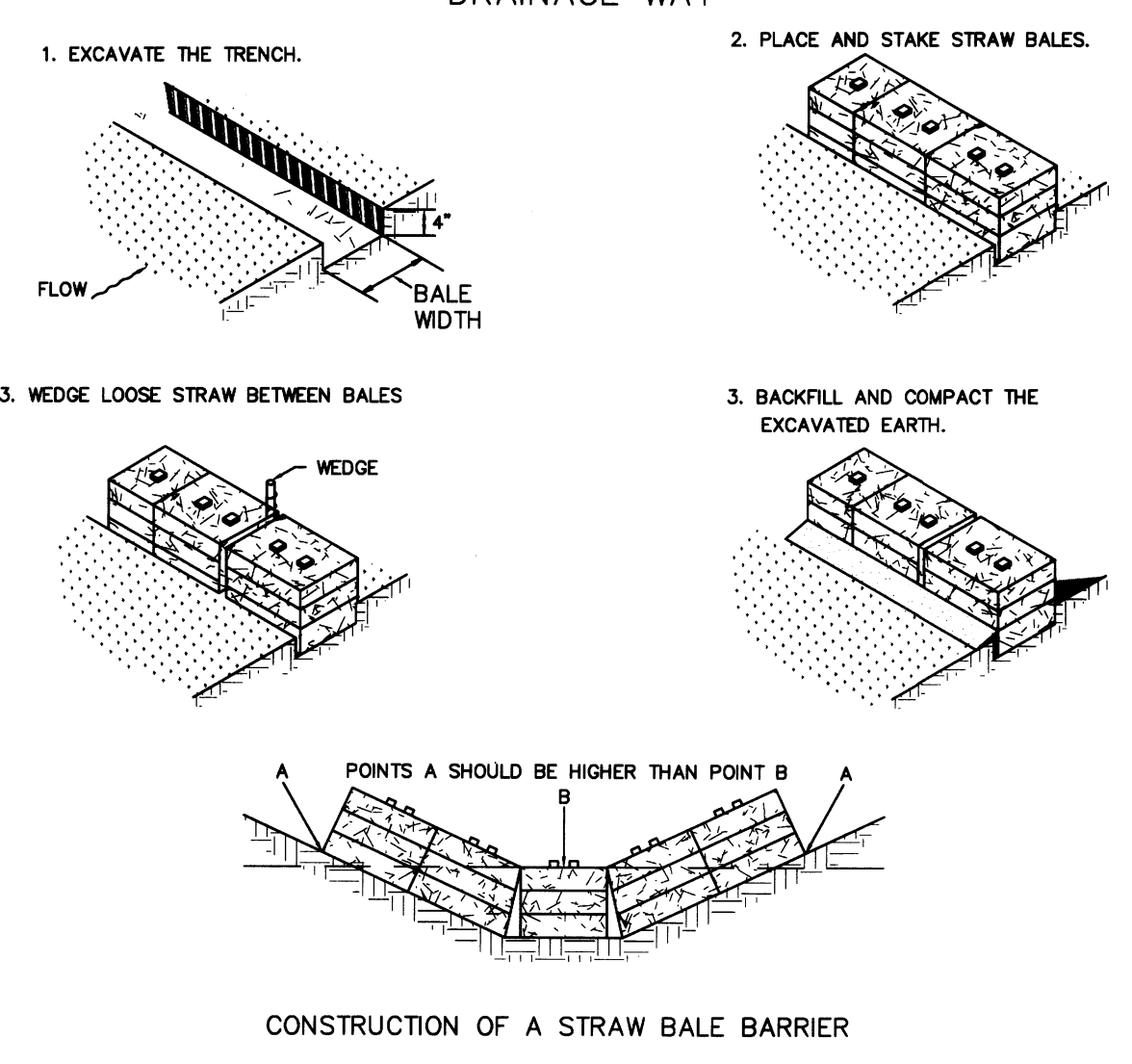
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



TURBIDITY BARRIER APPLICATIONS



PROPER PLACEMENT OF A STRAW BALE BARRIER IN DRAINAGE WAY



TYPICAL STRUCTURE PROTECTION
SILT FENCE SHALL BE INSTALLED AT ALL ROW WHERE DISTURBANCE OCCURS
GRAVEL CONSTRUCTION ENTRANCES SHALL BE INSTALLED IF TRACKING OCCURS ON PUBLIC ROADS