

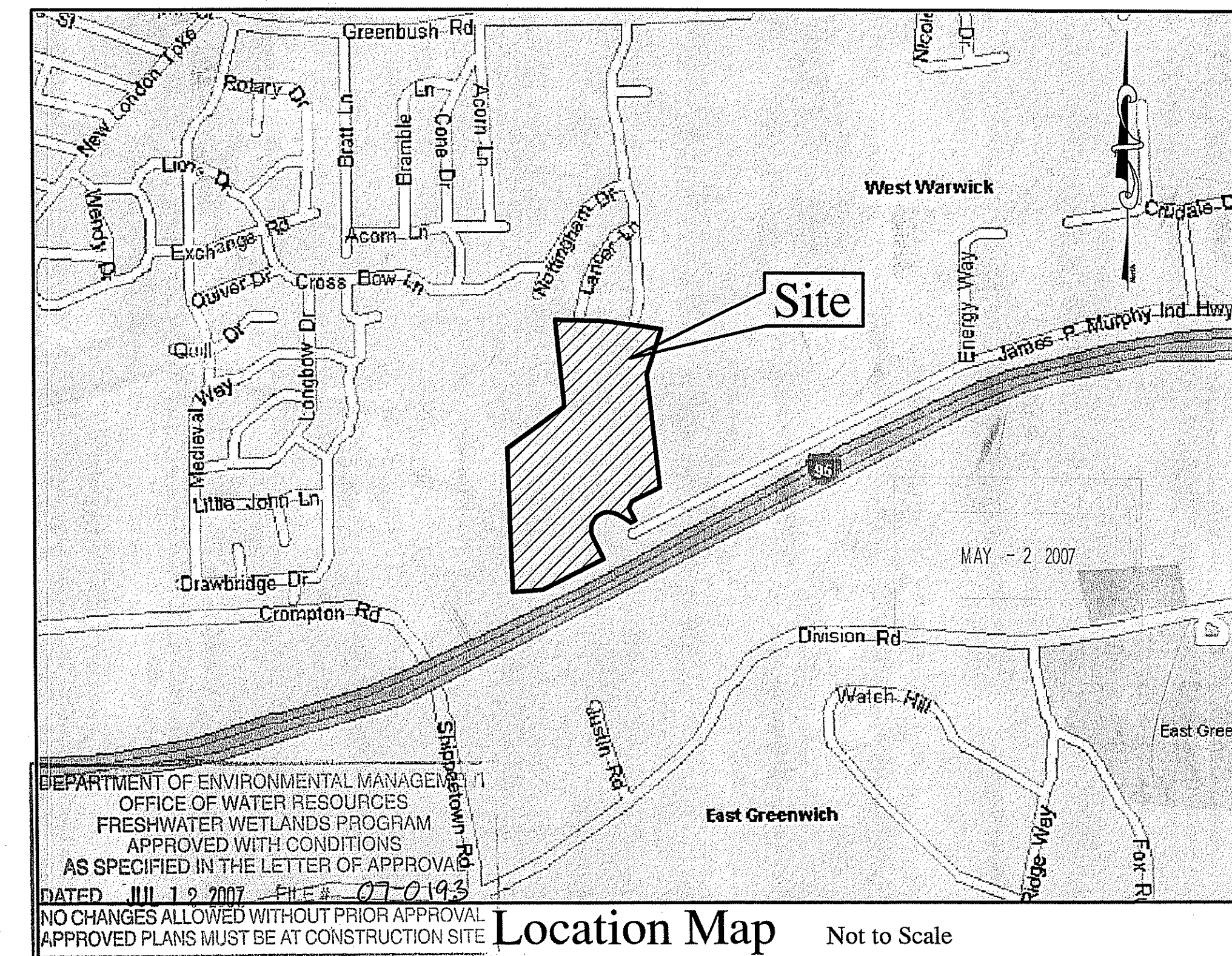
R.I.D.E.M. Preliminary Determination Submission Shipwreck Falls Lodge

Located on James P. Murphy Industrial Hwy
West Warwick, Rhode Island
Assessor's Plat 12 Lot 2 & Portion of Lot 31

Sheet Index

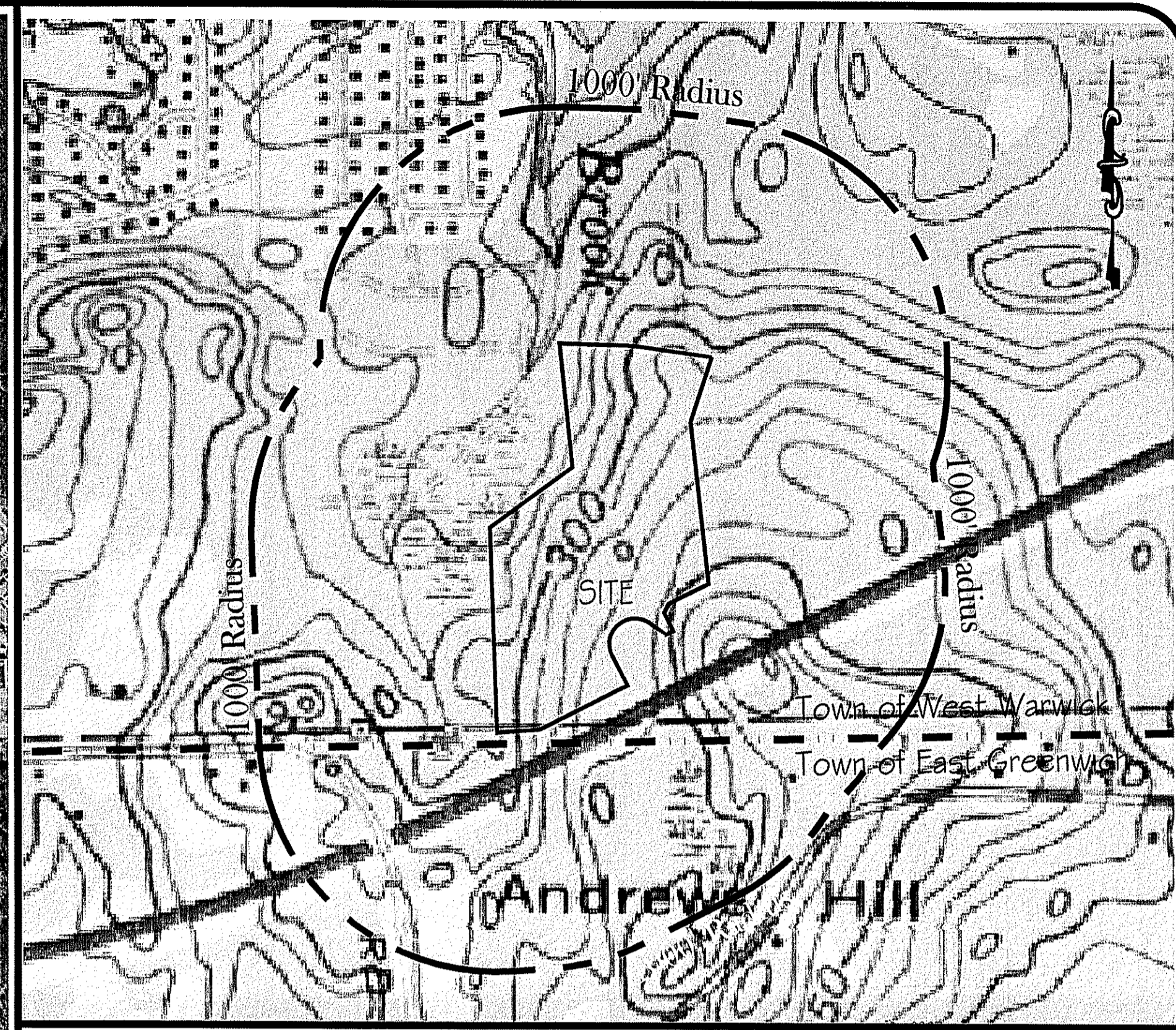
1. Cover Sheet
2. Aerial 1/2 Mile Radius
3. Existing Conditions / Demo Plan
4. Existing Conditions Plan
5. Overall Site Plan
6. Grading/Utility Plan 1
7. Grading/Utility Plan 2
8. Grading/Utility Plan 3
9. Grading/Utility Plan 4
10. Grading/Utility Plan 5
11. Grading/Utility Plan 6
12. Grading/Utility Plan 7
13. Detail Sheet
14. Detail Sheet
15. Detail Sheet
16. Detail Sheet

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.



Charles A. Hester
Professional Engineer

		COVER SHEET	
		Shipwreck Falls Lodge ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31 WEST WARWICK, RHODE ISLAND	
PREPARED BY DiPrete Engineering Associates, Inc. ENGINEERING, SURVEYING AND PLANNING CONSULTANTS TWO STAFFORD COURT CRANSTON, R.I. 02920 (401) 943-1000 FAX: (401) 464-6006		PREPARED FOR Dial Family Resorts 11506 NICHOLAS STREET, #200 OMAHA, NEBRASKA 68154 PHONE: (402) 493-2800	
NO. 5-1-07 DATE	RIDEM Wetlands Submission DESCRIPTION	T.L.L. BY	SHEET 1 OF 16



USGS Location Map Scale 1" = 500'

Photo obtained from the RI-GIS of 2004 Digital Orthophotography Southern Urban Areas of Rhode Island.

LEONARD R. BRADLEY, JR.
 No. 6610
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

Charles A. H. [Signature]
 AERIAL 1/2 MILE RADIUS
Shipwreck Falls Lodge

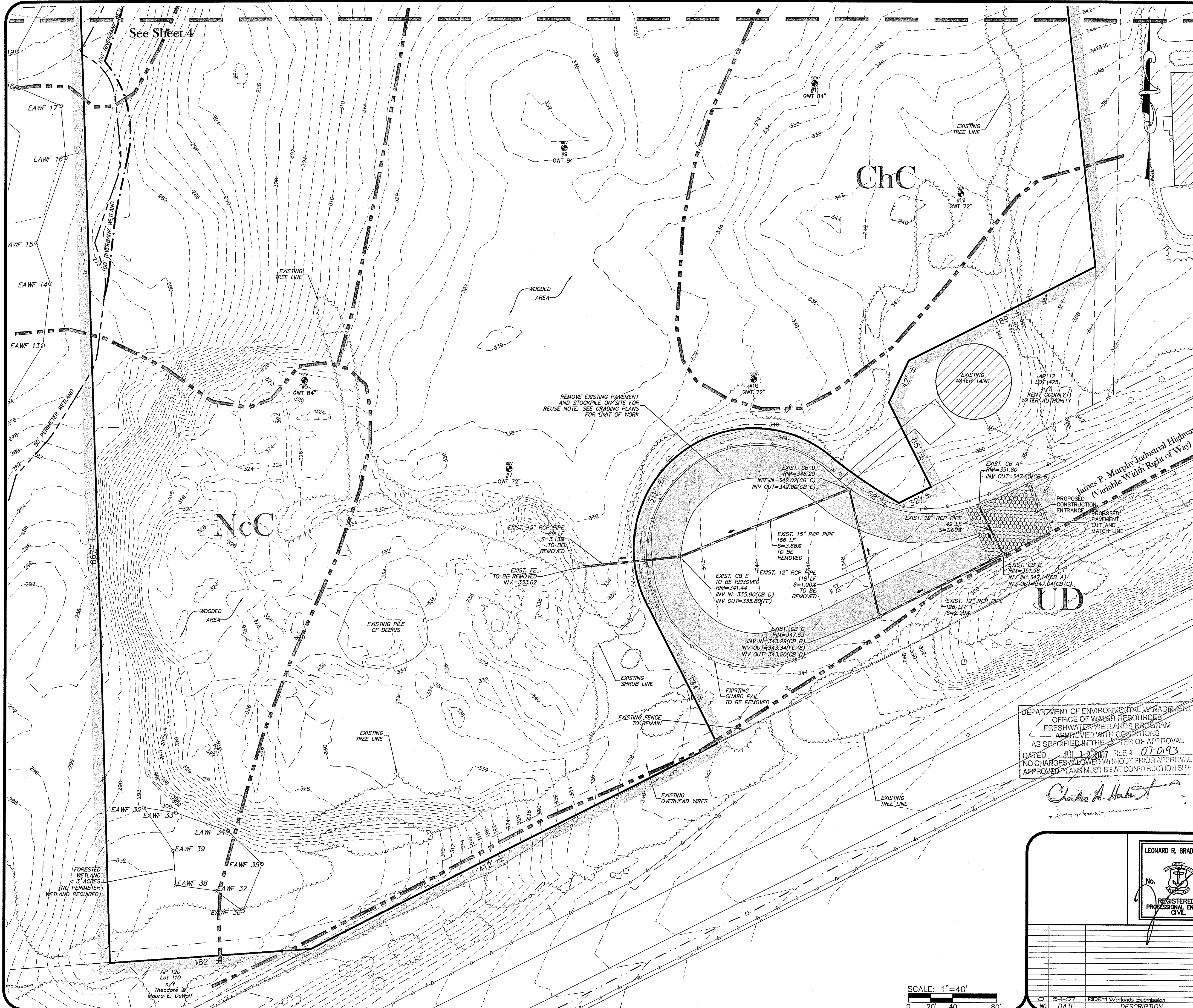
ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31
 WEST WARWICK, RHODE ISLAND

PREPARED BY
DiPrete Engineering Associates, Inc.
 ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
 TWO STAFFORD COURT
 CRANSTON, R.I. 02920
 (401) 943-1000 FAX: (401) 464-6006

PREPARED FOR
Dial Family Resorts
 11506 NICHOLAS STREET, #200
 OMAHA, NEBRASKA 68154
 PHONE: (402) 493-2800

SCALE: 1" = 400'
 0 200' 400' 800'

NO.	DATE	REVISION/DESCRIPTION	BY



- ### GENERAL NOTES
- THE SITE IS LOCATED ON THE TOWN OF WEST WARWICK'S ASSESSOR'S PLAT 12 LOT 2 AND PORTION OF AP 12 LOT 31.
 - THE SITE IS APPROXIMATELY 23.22 ± ACRES.
 - THE SITE IS ZONED BUSINESS PARK.
 - THE OWNER OF THE LOT 2 IS DPJ REALTY, LLC, 99 JAMES P. MURPHY HIGHWAY, WEST WARWICK, RI 02893; THE OWNER OF LOT 31 IS TRI TOWN CONSTRUCTION, 10 WHITE HORN DRIVE, KINGSTON, RI 02881.
 - THE APPLICANT IS DIAL FAMILY RESORTS, 11506 NICHOLAS STREET, #200, OMAHA, NEBRASKA 68154.
 - WETLANDS BY EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC., AIRPORT PROFESSIONAL PARK, 2350 POST ROAD, WARWICK, RI 02886
 - TOPOGRAPHY BY DIPRETE ENGINEERING ASSOCIATES INC. AND AERIAL MAPPING BY COL-EAST, NORTH ADAMS, MA. HORIZONTAL DATUM IS RHODE ISLAND 3900 (NAD 83) AND VERTICAL DATUM IS NAVD83.
 - NO HISTORIC CEMETERIES ARE ON OR IMMEDIATELY ADJACENT TO THE PROPERTY.
 - THERE IS NO 100 YEAR FLOOD PLAIN LOCATED ON THE SITE ACCORDING TO F.E.M.A. FLOOD INSURANCE RATE MAP FOR THE TOWN OF WEST WARWICK, RHODE ISLAND COMMUNITY PANEL 440007 0005 B DATED APRIL 15, 1986. THE SITE IS LOCATED WITHIN THE FOLLOWING FLOOD INSURANCE ZONE: ZONE X - AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD-PLAIN.
 - ASSESSORS PLAT 12 LOT 2 & PORTION OF LOT 31 OF THIS PLAN IS SUBSTANTIALLY CORRECT IN ACCORDANCE WITH A CLASS IV STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS. THIS PLAN IS NOT TO BE CONSTRUED AS AN ACCURATE BOUNDARY SURVEY AND MAY BE SUBJECT TO SUCH CHANGES AS AN ACCURATE BOUNDARY SURVEY MAY DISCLOSE.
 - PROPOSED SILT FENCE TO BE PLACED AT LIMIT OF WORK PRIOR TO DEMOLITION WORK.
 - ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS BY OTHERS, OR INFORMATION PROVIDED TO DEA AND ARE SUBJECT TO CHANGE. NO ONE SHOULD RELY ON THE UTILITY LOCATIONS SHOWN FOR CONSTRUCTION AND DIG SAFE SHOULD BE NOTIFIED PRIOR TO ANY WORK.

- ### SOIL INFORMATION
- SOIL MAPPING OBTAINED FROM 'SOIL SURVEY OF RHODE ISLAND', PREPARED BY U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.
- ChB - CANTON AND CHARLTON VERY STONY FINE SANDY LOAMS, 3 TO 8 PERCENT SLOPES
 - ChC - CANTON AND CHARLTON VERY STONY FINE SANDY LOAMS, 8 TO 15 PERCENT SLOPES
 - ChD - CANTON AND CHARLTON VERY STONY FINE SANDY LOAMS, 15 TO 25 PERCENT SLOPES
 - NcC - NARRAGANSETT EXTREMELY STONY SILT LOAM, 3 TO 15 PERCENT SLOPES
 - Rf - RIDGEBURY, WHITMAN, AND LEICESTER EXTREMELY STONY FINE SANDY LOAMS
 - Sub - SUTTON VERY STONY FINE SANDY LOAM, 0 TO 8 PERCENT SLOPES
 - UD - URBAN LAND COMPLEX

- ### LEGEND
- PROPERTY LINE
 - 10 FOOT CONTOUR
 - 2 FOOT CONTOUR
 - SOIL BOUNDARY LINE
 - SOIL TYPES
 - EXISTING TREELINE
 - EXISTING TREES
 - EXISTING FENCE
 - EXISTING STONE WALL
 - EXISTING GUARDRAIL
 - EXISTING EDGE OF PAVEMENT
 - EXISTING UTILITY POLE
 - EXISTING HYDRANT
 - EXISTING CATCH BASIN
 - EXISTING DRAINAGE MANHOLE
 - EXISTING DRAINAGE PIPE
 - EXISTING DRAINAGE PIPE TO BE REMOVED
 - EXISTING FLARED END
 - EXISTING WATER VALVE
 - EXISTING BUILDING
 - EXISTING WETLAND FLAG
 - TEST HOLES
 - MATCH LINES
 - EXISTING WATER LINE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JUL 19 2007 FILE # 07-0193
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Hackett

SCALE: 1"=40'
 0 20' 40' 80'

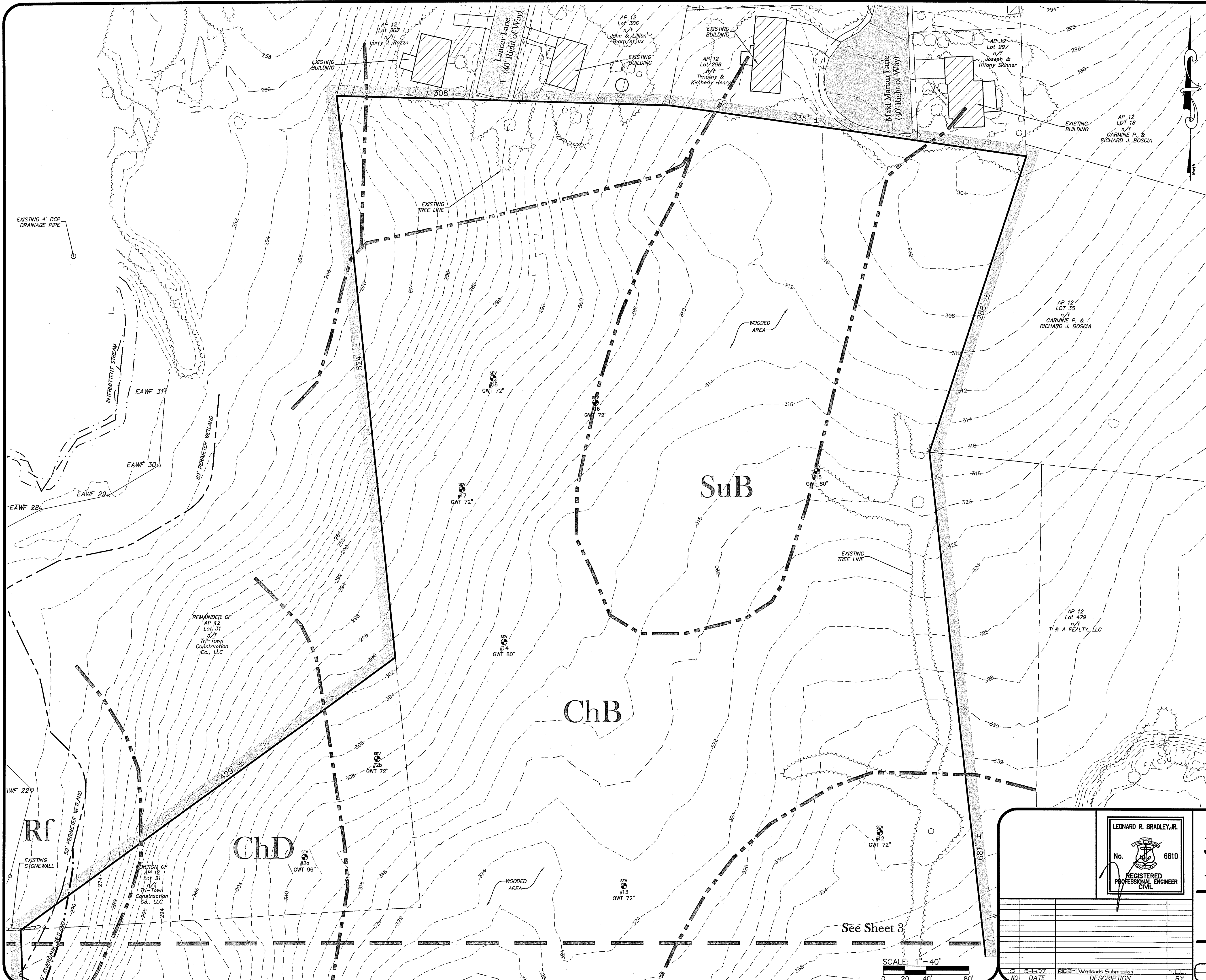
LEONARD R. BRADLEY, JR.
 No. 6610
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

EXISTING CONDITIONS/DEMO PLAN 1/1
Shipwreck Falls Lodge
 ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31
 WEST WARWICK, RHODE ISLAND

PREPARED BY
DiPrete Engineering Associates, Inc.
 ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
 TWO STAFFORD COURT
 CRANSTON, R.I. 02920
 (401) 943-1000 FAX: (401) 464-6006

PREPARED FOR
Dial Family Resorts
 11506 NICHOLAS STREET, #200
 OMAHA, NEBRASKA 68154
 PHONE: (402) 493-2800

NO.	DATE	DESCRIPTION	T.L.L.	BY
0	5-1-07	RIDPRET Wetlands Submission		



SOIL INFORMATION
 SOIL MAPPING OBTAINED FROM "SOIL SURVEY OF RHODE ISLAND", PREPARED BY U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.

ChB - CANTON AND CHARLTON VERY STONY FINE SANDY LOAMS, 3 TO 8 PERCENT SLOPES

ChC - CANTON AND CHARLTON VERY STONY FINE SANDY LOAMS, 8 TO 15 PERCENT SLOPES

ChD - CANTON AND CHARLTON VERY STONY FINE SANDY LOAMS, 15 TO 25 PERCENT SLOPES

NeC - NARRAGANSETT EXTREMELY STONY SILT LOAM, 3 TO 15 PERCENT SLOPES

Rf - RIDGEBURY, WHITMAN, AND LEICESTER EXTREMELY STONY FINE SANDY LOAMS

SuB - SUTTON VERY STONY FINE SANDY LOAM, 0 TO 8 PERCENT SLOPES

UD - UDORHTHENTS-URBAN LAND COMPLEX

- LEGEND**
- PROPERTY LINE
 - 10 FOOT CONTOUR
 - 2 FOOT CONTOUR
 - SOIL BOUNDARY LINE
 - SOIL TYPES
 - EXISTING TREELINE
 - EXISTING TREES
 - EXISTING FENCE
 - EXISTING STONE WALL
 - EXISTING GUARDRAIL
 - EXISTING EDGE OF PAVEMENT
 - EXISTING UTILITY POLE
 - EXISTING HYDRANT
 - EXISTING CATCH BASIN
 - EXISTING DRAINAGE MANHOLE
 - EXISTING DRAINAGE PIPE
 - EXISTING DRAINAGE PIPE TO BE REMOVED
 - EXISTING FLARED END
 - EXISTING WATER VALVE
 - EXISTING BUILDING
 - EXISTING WETLAND FLAG
 - TEST HOLES
 - MATCH LINES
 - EXISTING WATER LINE

MAY - 2 2007

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JUL 12 2007 FILE # 07-0193
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Herbert

LEONARD R. BRADLEY, JR.
 No. 6610
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

EXISTING CONDITIONS PLAN 2/2
Shipwreck Falls Lodge
 ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31
 WEST WARWICK, RHODE ISLAND

PREPARED BY
DiPrete Engineering Associates, Inc.
 ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
 TWO STAFFORD COURT
 CRANSTON, R.I. 02920
 (401) 943-1000 FAX: (401) 464-6006

PREPARED FOR
Dial Family Resorts
 11506 NICHOLAS STREET, #200
 OMAHA, NEBRASKA 68154
 PHONE: (402) 493-2800

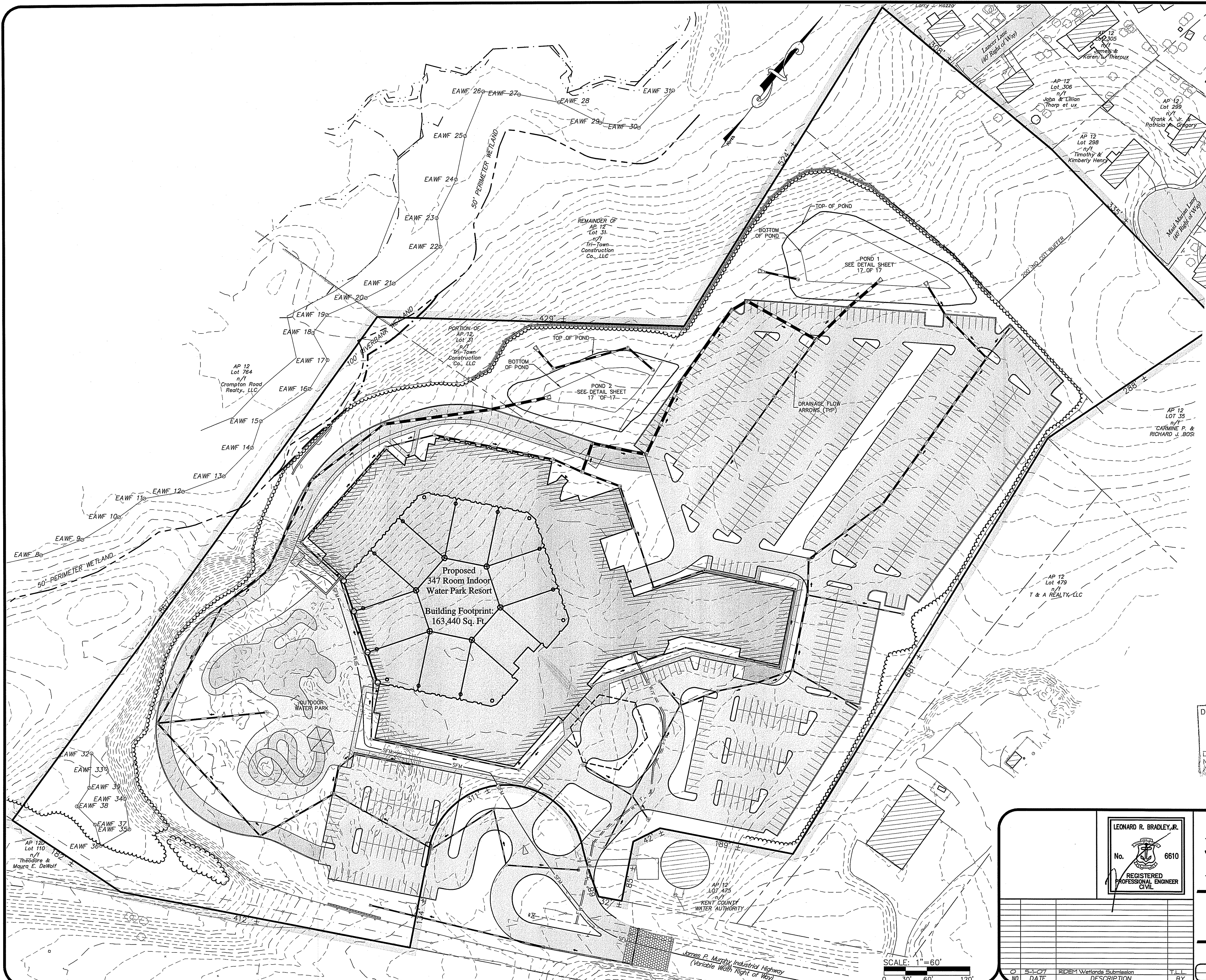
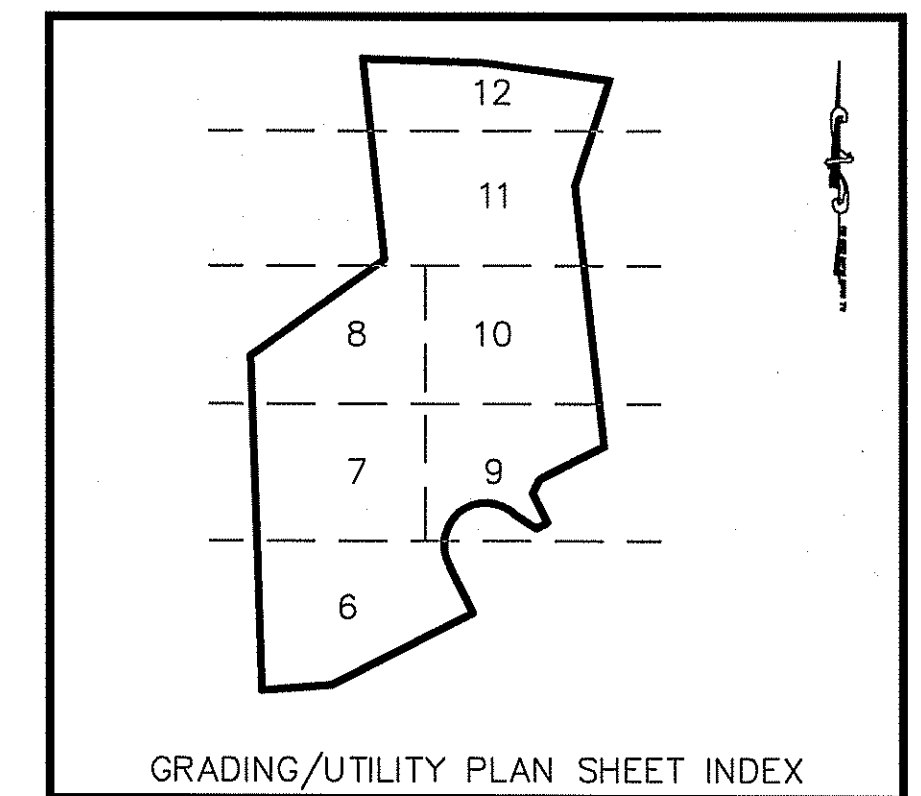
NO.	DATE	DESCRIPTION	BY
0	5-1-07	DiPrete Wetlands Submission	T.L.L.

SCALE: 1"=40'
 0 20' 40' 80'

See Sheet 3

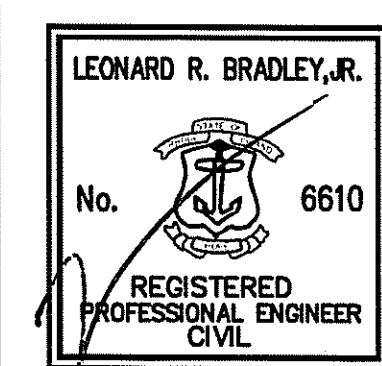
DIMENSIONAL REGULATIONS

SITE AREA:	23.22 ± ACRES
ZONING:	BUSINESS PARK
MINIMUM LOT AREA:	40,000 S.F.
MINIMUM FRONTAGE:	NONE
MINIMUM FRONT YARD SETBACK:	50 FT.
MINIMUM INTERIOR SIDE YARD SETBACK:	20 FT.
MINIMUM CORNER SIDE YARD SETBACK:	50 FT.
MINIMUM REAR YARD SETBACK:	50 FT.



MAY - 2 2007

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUL 12 2007 FILE # 07-0193
NO CHANGES ALLOWED WITHOUT PERMITTING AGENCY APPROVED PLANS MUST BE AT ALL TIMES
Charles A. Hebert



OVERALL SITE PLAN
Shipwreck Falls Lodge
ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31
WEST WARWICK, RHODE ISLAND

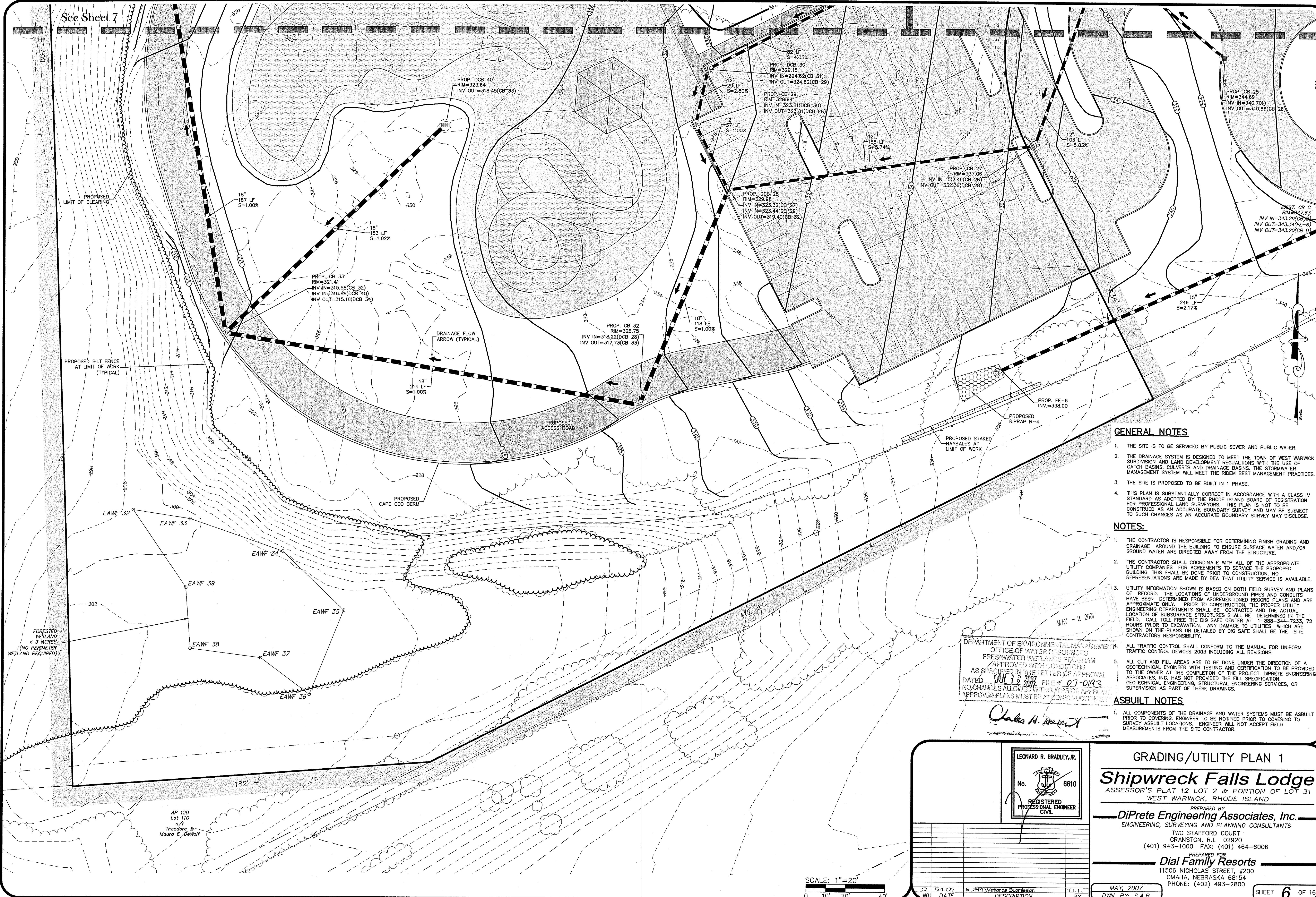
PREPARED BY
DiPrete Engineering Associates, Inc.
ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
TWO STAFFORD COURT
CRANSTON, R.I. 02920
(401) 943-1000 FAX: (401) 464-6006

PREPARED FOR
Dial Family Resorts
11506 NICHOLAS STREET, #200
OMAHA, NEBRASKA 68154
PHONE: (402) 493-2800

NO.	DATE	DESCRIPTION	BY
0	5-1-07	RIDEM Wetlands Submission	T.L.L.

MAY, 2007
DWN. BY: S.A.B. SHEET 5 OF 16

See Sheet 7



- GENERAL NOTES**
1. THE SITE IS TO BE SERVED BY PUBLIC SEWER AND PUBLIC WATER.
 2. THE DRAINAGE SYSTEM IS DESIGNED TO MEET THE TOWN OF WEST WARWICK SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WITH THE USE OF CATCH BASINS, CULVERTS AND DRAINAGE BASINS. THE STORMWATER MANAGEMENT SYSTEM WILL MEET THE RIDEM BEST MANAGEMENT PRACTICES.
 3. THE SITE IS PROPOSED TO BE BUILT IN 1 PHASE.
 4. THIS PLAN IS SUBSTANTIALLY CORRECT IN ACCORDANCE WITH A CLASS IV STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS. THIS PLAN IS NOT TO BE CONSTRUED AS AN ACCURATE BOUNDARY SURVEY AND MAY BE SUBJECT TO SUCH CHANGES AS AN ACCURATE BOUNDARY SURVEY MAY DISCLOSE.

- NOTES:**
1. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINISH GRADING AND DRAINAGE AROUND THE BUILDING TO ENSURE SURFACE WATER AND/OR GROUND WATER ARE DIRECTED AWAY FROM THE STRUCTURE.
 2. THE CONTRACTOR SHALL COORDINATE WITH ALL OF THE APPROPRIATE UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDING. THIS SHALL BE DONE PRIOR TO CONSTRUCTION. NO REPRESENTATIONS ARE MADE BY DEA THAT UTILITY SERVICE IS AVAILABLE.
 3. UTILITY INFORMATION SHOWN IS BASED ON BOTH FIELD SURVEY AND PLANS OF RECORD. THE LOCATIONS OF UNDERGROUND PIPES AND CONDUITS HAVE BEEN DETERMINED FROM AFOREMENTIONED RECORD PLANS AND ARE APPROXIMATE ONLY. PRIOR TO CONSTRUCTION, THE PROPER UTILITY ENGINEERING DEPARTMENTS SHALL BE CONTACTED AND THE ACTUAL LOCATION OF SUBSURFACE STRUCTURES SHALL BE DETERMINED IN THE FIELD. CALL TOLL FREE THE DIG SAFE CENTER AT 1-888-344-7235, 72 HOURS PRIOR TO EXCAVATION. ANY DAMAGE TO UTILITIES WHICH ARE SHOWN ON THE PLANS OR DETAILED BY DIG SAFE SHALL BE THE SITE CONTRACTORS RESPONSIBILITY.
 4. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES 2003 INCLUDING ALL REVISIONS.
 5. ALL CUT AND FILL AREAS ARE TO BE DONE UNDER THE DIRECTION OF A GEOTECHNICAL ENGINEER WITH TESTING AND CERTIFICATION TO BE PROVIDED TO THE OWNER AT THE COMPLETION OF THE PROJECT. DIPRETE ENGINEERING ASSOCIATES, INC. HAS NOT PROVIDED THE FILL SPECIFICATION. GEOTECHNICAL ENGINEERING, STRUCTURAL ENGINEERING SERVICES, OR SUPERVISION AS PART OF THESE DRAWINGS.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED July 19 2007 FILE # 07-0193
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

MAY - 2 2007

Charles H. Bradley, Jr.

- ASBUILT NOTES**
1. ALL COMPONENTS OF THE DRAINAGE AND WATER SYSTEMS MUST BE ASBUILT PRIOR TO COVERING. ENGINEER TO BE NOTIFIED PRIOR TO COVERING TO SURVEY ASBUILT LOCATIONS. ENGINEER WILL NOT ACCEPT FIELD MEASUREMENTS FROM THE SITE CONTRACTOR.

LEONARD R. BRADLEY, JR.
No. 6610
REGISTERED PROFESSIONAL ENGINEER
CIVIL

GRADING/UTILITY PLAN 1
Shipwreck Falls Lodge
ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31
WEST WARWICK, RHODE ISLAND

PREPARED BY
DiPrete Engineering Associates, Inc.
ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
TWO STAFFORD COURT
CRANSTON, R.I. 02920
(401) 943-1000 FAX: (401) 464-6006

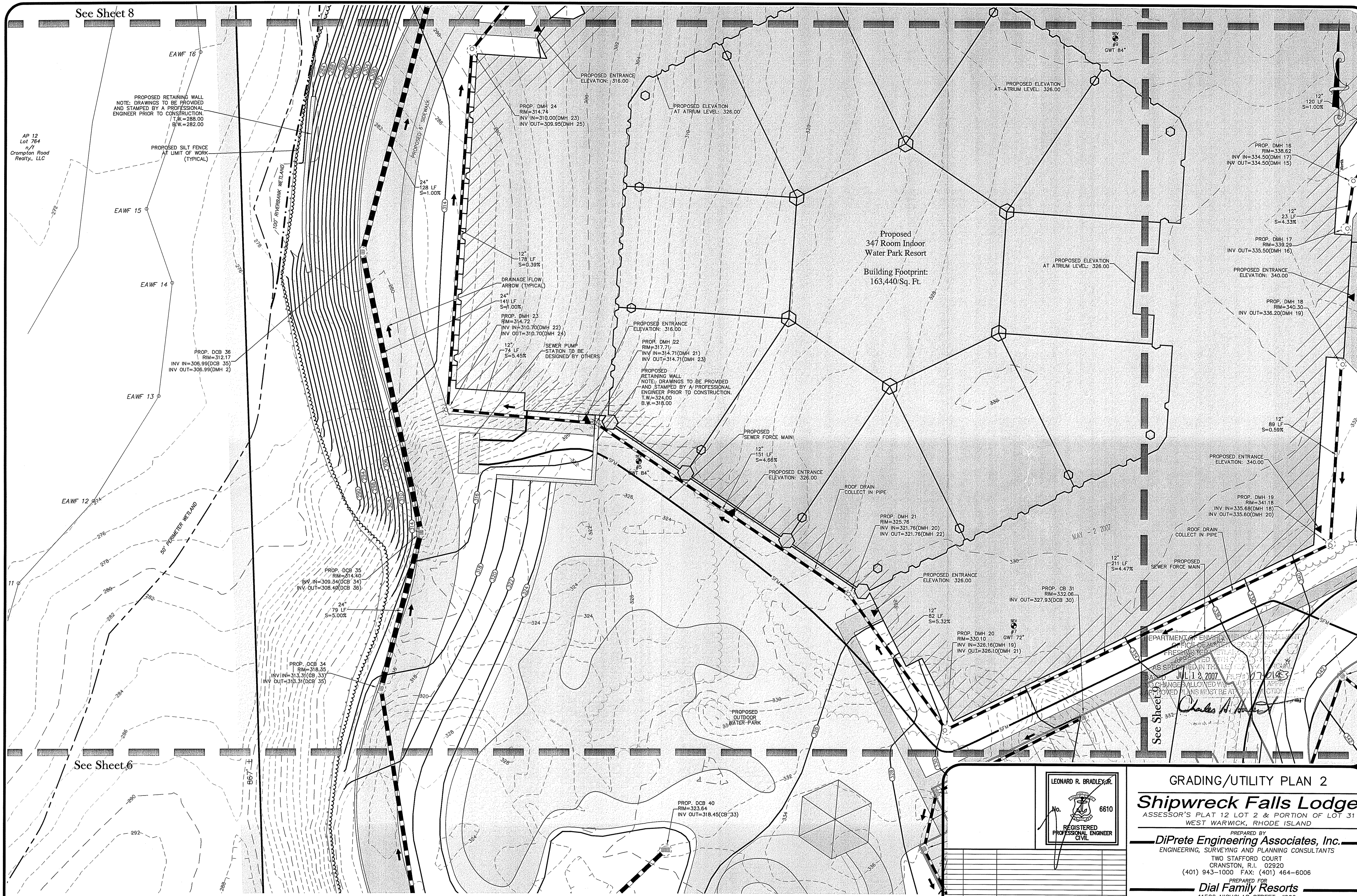
PREPARED FOR
Dial Family Resorts
11506 NICHOLAS STREET, #200
OMAHA, NEBRASKA 68154
PHONE: (402) 493-2800

SCALE: 1" = 20'
0 10' 20' 40'

NO.	DATE	DESCRIPTION	TITLE	BY
0	5-1-07	RIDEM Wetlands Submission	T.L.L.	

MAY, 2007
DWN. BY: S.A.B. SHEET 6 OF 16

See Sheet 8



PROPOSED RETAINING WALL
NOTE: DRAWINGS TO BE PROVIDED
AND STAMPED BY A PROFESSIONAL
ENGINEER PRIOR TO CONSTRUCTION.
T.W.=288.00
B.W.=282.00

PROPOSED SILT FENCE
AT LIMIT OF WORK
(TYPICAL)

AP 12
Lot 784
n/l
Crompton Road
Realty, LLC

Proposed
347 Room Indoor
Water Park Resort
Building Footprint:
163,440/Sq. Ft.

PROP. DMH 24
RIM=314.74
INV IN=310.00(DMH 23)
INV OUT=309.95(DMH 25)

12" LF
178 LF
S=0.39%

PROP. DMH 23
RIM=314.72
INV IN=310.70(DMH 22)
INV OUT=310.70(DMH 24)

12" LF
74 LF
S=5.45%

SEWER PUMP
STATION TO BE
DESIGNED BY OTHERS

PROPOSED ENTRANCE
ELEVATION: 316.00

PROP. DMH 22
RIM=317.71
INV IN=314.71(DMH 21)
INV OUT=314.71(DMH 23)

PROPOSED RETAINING WALL
NOTE: DRAWINGS TO BE PROVIDED
AND STAMPED BY A PROFESSIONAL
ENGINEER PRIOR TO CONSTRUCTION.
T.W.=324.00
B.W.=318.00

PROPOSED SEWER FORCE MAIN

12" LF
151 LF
S=4.66%

PROPOSED ENTRANCE
ELEVATION: 328.00

ROOF DRAIN
COLLECT IN PIPE

PROP. DMH 21
RIM=325.76
INV IN=321.76(DMH 20)
INV OUT=321.76(DMH 22)

PROPOSED ENTRANCE
ELEVATION: 326.00

12" LF
82 LF
S=5.32%

PROP. DMH 20
RIM=330.10
GWT 72"
INV IN=326.16(DMH 19)
INV OUT=326.10(DMH 21)

PROP. CB 31
RIM=332.06
INV OUT=327.93(DCB 30)

12" LF
211 LF
S=4.47%

PROPOSED SEWER FORCE MAIN

PROPOSED ENTRANCE
ELEVATION: 340.00

PROP. DMH 19
RIM=341.18
INV IN=335.60(DMH 18)
INV OUT=335.60(DMH 20)

ROOF DRAIN
COLLECT IN PIPE

EAWF 12

EAWF 13

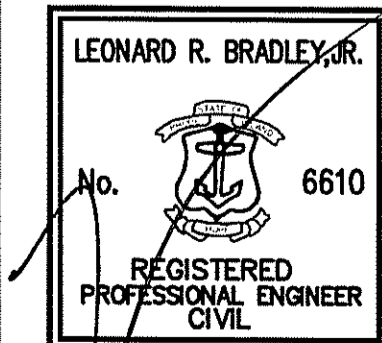
EAWF 14

EAWF 15

EAWF 16

See Sheet 6

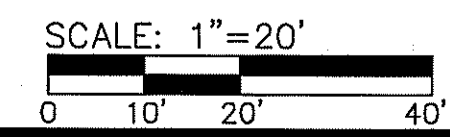
See Sheet 9



GRADING/UTILITY PLAN 2
Shipwreck Falls Lodge
ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31
WEST WARWICK, RHODE ISLAND

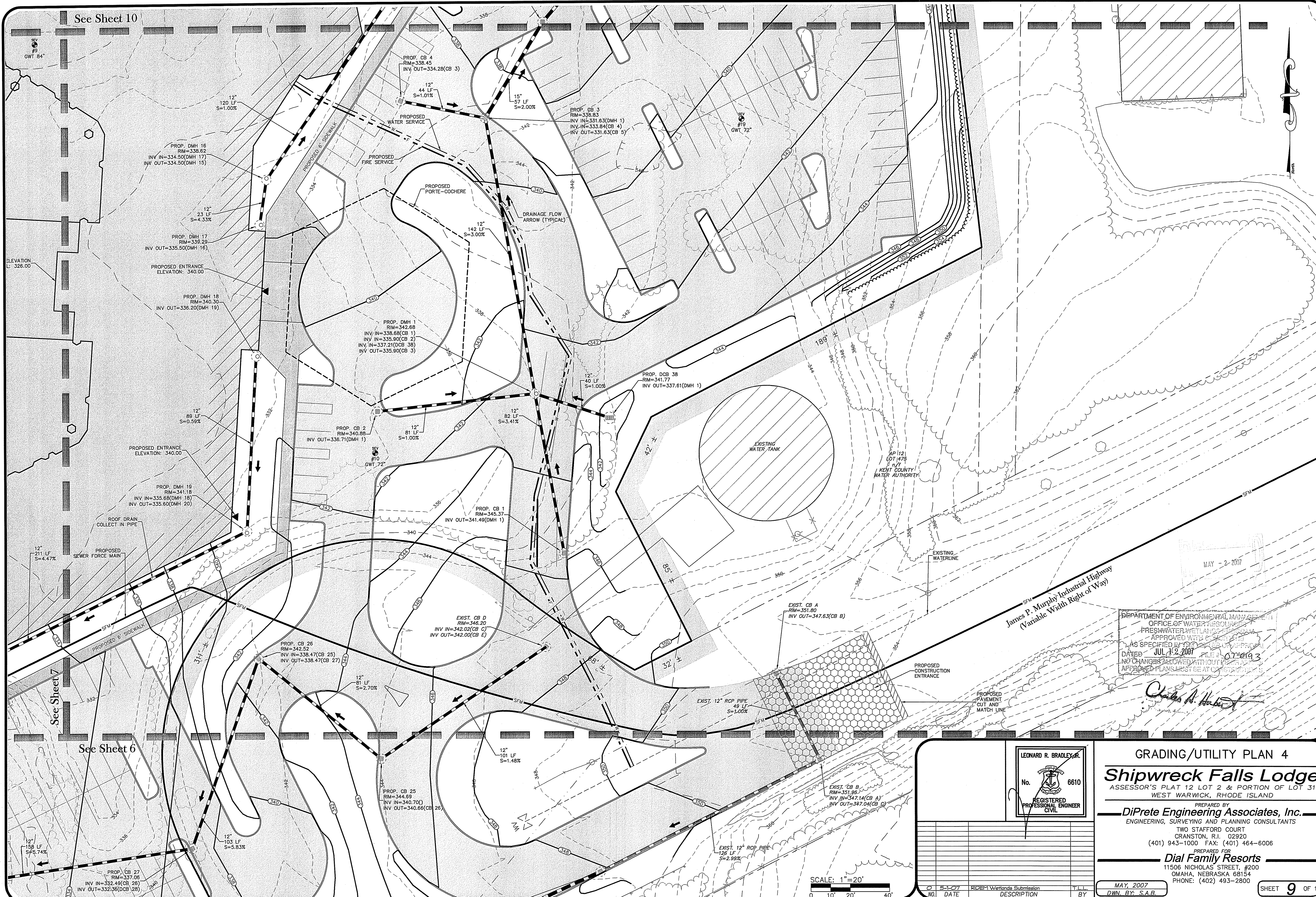
PREPARED BY
DiPrete Engineering Associates, Inc.
ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
TWO STAFFORD COURT
CRANSTON, R.I. 02920
(401) 943-1000 FAX: (401) 464-6006

PREPARED FOR
Dial Family Resorts
11506 NICHOLAS STREET, #200
OMAHA, NEBRASKA 68154
PHONE: (402) 493-2800



NO.	DATE	DESCRIPTION	T.I.L.	BY
0	5-1-07	RIPDEM Wetlands Submission		

See Sheet 10



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PERMIT
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE PERMIT APPROVAL
 DATED JUL 19 2007 FILE # 07-0193
 NO CHANGES ALLOWED WITHOUT PERMIT
 APPROVED PLANS MUST BE AT CONSTRUCTION

Charles A. Bradley

James P. Murphy Industrial Highway
 (Variable Width Right of Way)

See Sheet 7

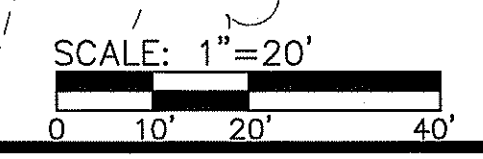
See Sheet 6

LEONARD R. BRADLEY, R.
 No. 6610
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

GRADING/UTILITY PLAN 4
Shipwreck Falls Lodge
 ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31
 WEST WARWICK, RHODE ISLAND

PREPARED BY
DiPrete Engineering Associates, Inc.
 ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
 TWO STAFFORD COURT
 CRANSTON, R.I. 02920
 (401) 943-1000 FAX: (401) 464-6006

PREPARED FOR
Dial Family Resorts
 11506 NICHOLAS STREET, #200
 OMAHA, NEBRASKA 68154
 PHONE: (402) 493-2800



NO.	DATE	DESCRIPTION	T.L.L.	BY
1	5-1-07	RIDE1 Wetlands Submission		

See Sheet 11

PROP. CB 22
RIM=313.87
INV. IN=306.95(CB 21)
INV. OUT=304.30(CB 23)

PROP. DCB 18
RIM=317.22
INV. IN=313.19(CB 17)
INV. OUT=312.94(DCB 19)

PROP. CB 11
RIM=323.48
INV. IN=318.60(DCB 10)
INV. OUT=318.60(DCB 12)

PROP. DCB 10
RIM=329.23
INV. IN=324.00(CB 8)
INV. OUT=324.00(CB 11)

PROP. CB 9
RIM=331.36
INV. OUT=328.19(CB 8)

PROP. CB 17
RIM=320.86
INV. OUT=316.80(DCB 18)

PROP. DMH 13
RIM=331.59
INV. IN=327.40(DMH 14)
INV. OUT=327.40(DMH 12)

PROP. CB 8
RIM=331.14
INV. IN=325.65(CB 7)
INV. IN=326.84(CB 9)
INV. OUT=325.65(DCB 10)

PROP. DMH 12
RIM=325.17
INV. IN=321.00(DMH 13)
INV. OUT=321.00(DMH 11)

PROP. DMH 14
RIM=336.42
INV. IN=331.56(DMH 15)
INV. OUT=331.50(DMH 13)

PROP. CB 35
RIM=338.40
INV. OUT=333.90(CB 7)

PROP. CB 7
RIM=335.94
INV. IN=328.32(CB 6)
INV. IN=331.74(CB 9)
INV. OUT=328.32(CB 8)

PROP. DMH 11
RIM=323.66
INV. IN=319.90(DMH 12)

PROP. CB 5
RIM=336.89
INV. IN=330.50(CB 3)
INV. OUT=330.50(CB 6)

PROP. CB 6
RIM=336.89
INV. IN=329.39(CB 5)
INV. OUT=329.39(CB 7)

PROPOSED ENTRANCE
ELEVATION: 322.00

PROP. DMH 15
RIM=338.31
INV. IN=333.30(DMH 16)
INV. OUT=333.30(DMH 14)

PROP. CB 4
RIM=338.45
INV. OUT=334.28(CB 3)

PROP. CB 3
RIM=338.83
INV. IN=331.63(DMH 1)
INV. IN=333.84(CB 4)
INV. OUT=331.63(CB 5)

PROP. DMH 16
RIM=338.62
INV. IN=334.50(DMH 17)
INV. OUT=334.50(DMH 15)

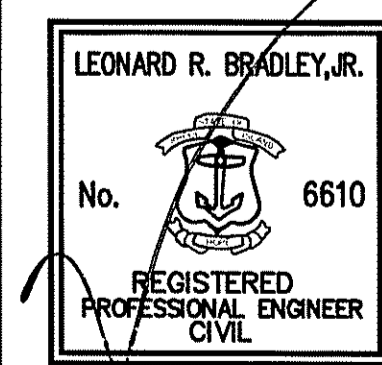
See Sheet 8

See Sheet 9

PROPOSED LIMIT OF WORK (TYPICAL)

PROPOSED LIMIT OF CLEARING

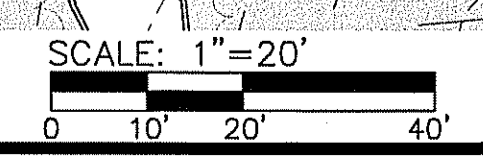
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF WATER RESOURCES
FRESHWATER DIVISION
APPROVED AS SHOWN
DATE: JUL 12 2007
NO CHANGES ALLOWED WITHOUT PERMISSION OF THE APPROVED PLANS MUST BE USED
07-0193
Charles A. Hester



GRADING/UTILITY PLAN 5
Shipwreck Falls Lodge
ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31
WEST WARWICK, RHODE ISLAND

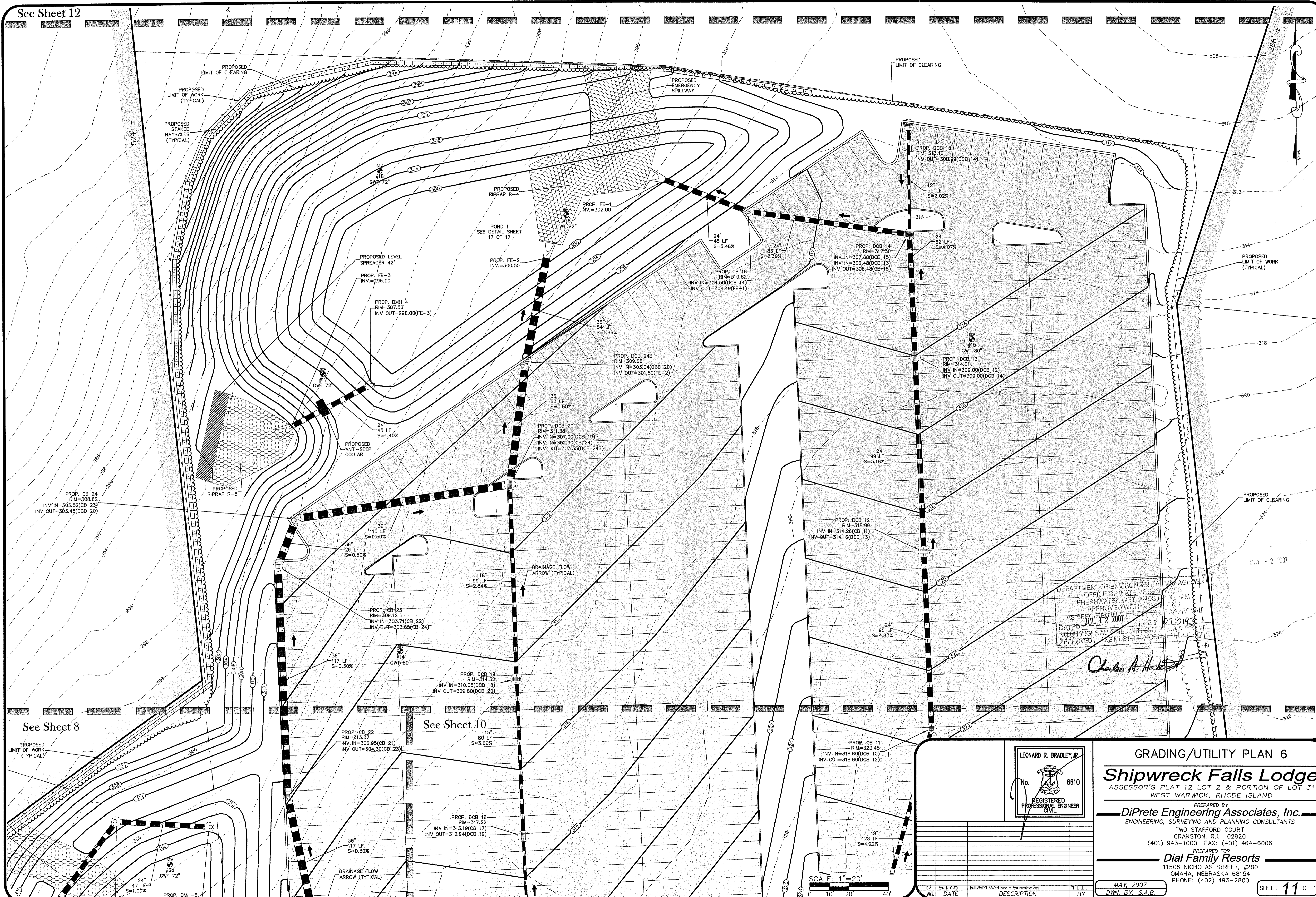
PREPARED BY
DiPrete Engineering Associates, Inc.
ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
TWO STAFFORD COURT
CRANSTON, R.I. 02920
(401) 943-1000 FAX: (401) 464-6006

PREPARED FOR
Dial Family Resorts
11506 NICHOLAS STREET, #200
OMAHA, NEBRASKA 68154
PHONE: (402) 493-2800



NO.	DATE	DESCRIPTION	T.I.L.	BY

See Sheet 12



See Sheet 8

See Sheet 10

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PERMITS SECTION
 APPROVED WITH SOME MODIFICATIONS
 AS SPECIFIED IN THE PERMIT
 DATED JUL 12 2007 FILE # 07-0193
 NO CHANGES ALLOWED WITHOUT THE APPROVAL OF THE PERMITTING AGENCY
 APPROVED PLANS MUST BE APPROVED AT THE SITE

Charles A. Horvath

LEONARD R. BRADLEY, JR.
 No. 6610
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

GRADING/UTILITY PLAN 6
Shipwreck Falls Lodge
 ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31
 WEST WARWICK, RHODE ISLAND

PREPARED BY
DiPrete Engineering Associates, Inc.
 ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
 TWO STAFFORD COURT
 CRANSTON, R.I. 02920
 (401) 943-1000 FAX: (401) 464-6006

PREPARED FOR
Dial Family Resorts
 11506 NICHOLAS STREET, #200
 OMAHA, NEBRASKA 68154
 PHONE: (402) 493-2800

SCALE: 1"=20'

NO.	DATE	DESCRIPTION	T.L.L.	BY
1	5-1-07	RIDEM Wetlands Submission		



See Sheet 11

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WELLS SUPERVISOR
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JUL 18 2007 FILE # 07-0193
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Haber

PROPOSED LIMIT OF WORK (TYPICAL)

PROPOSED STAKED HAYBALES (TYPICAL)

PROPOSED EMERGENCY SPILLWAY

PROPOSED LIMIT OF CLEARING

524' ±

PROPOSED LEVEL SPREADER 42'
 PROP. FE-3
 INV.=296.00

PROPOSED RIPRAP R-4
 POND 1
 SEE DETAIL SHEET 17 OF 17

PROP. FE-2
 INV.=300.50

PROP. FE-1
 INV.=302.00

PROP. CB 16
 RIM=310.82
 INV IN=304.50(DCB 14)
 INV OUT=304.49(FE-1)

PROP. DCB 15
 RIM=313.16
 INV OUT=308.99(DCB 14)

12" LF
 S=2.02%

24" LF
 S=4.07%

SCALE: 1"=20'

LEONARD R. BRADLEY, JR.
 No. 6610
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

GRADING/UTILITY PLAN 7
Shipwreck Falls Lodge
 ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31
 WEST WARWICK, RHODE ISLAND

PREPARED BY
DiPrete Engineering Associates, Inc.
 ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
 TWO STAFFORD COURT
 CRANSTON, R.I. 02920
 (401) 943-1000 FAX: (401) 464-6006

PREPARED FOR
Dial Family Resorts
 11506 NICHOLAS STREET, #200
 OMAHA, NEBRASKA 68154
 PHONE: (402) 493-2800

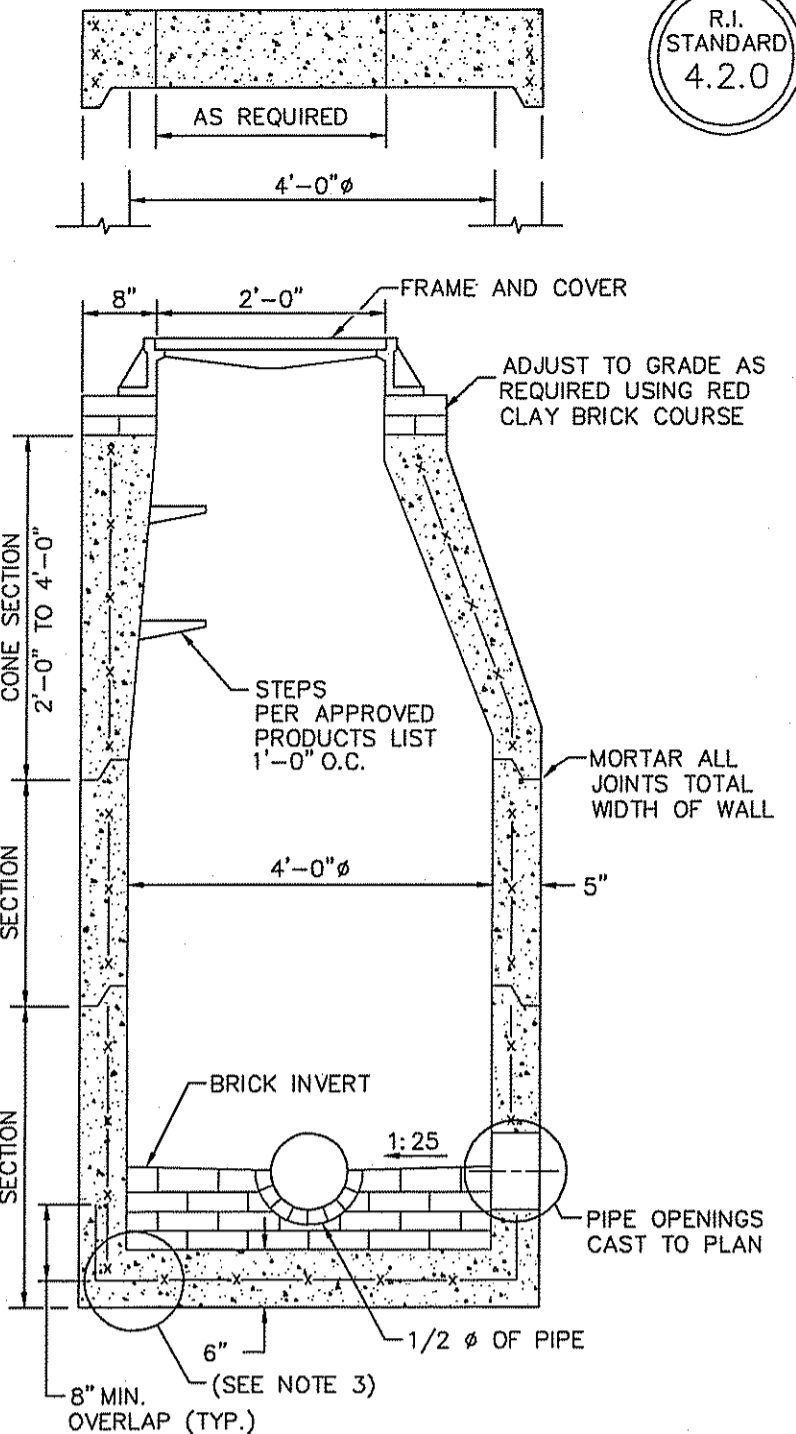
NO.	DATE	DESCRIPTION	BY

MAY, 2007
 DWN. BY: S.A.B.

SHEET 12 OF 16

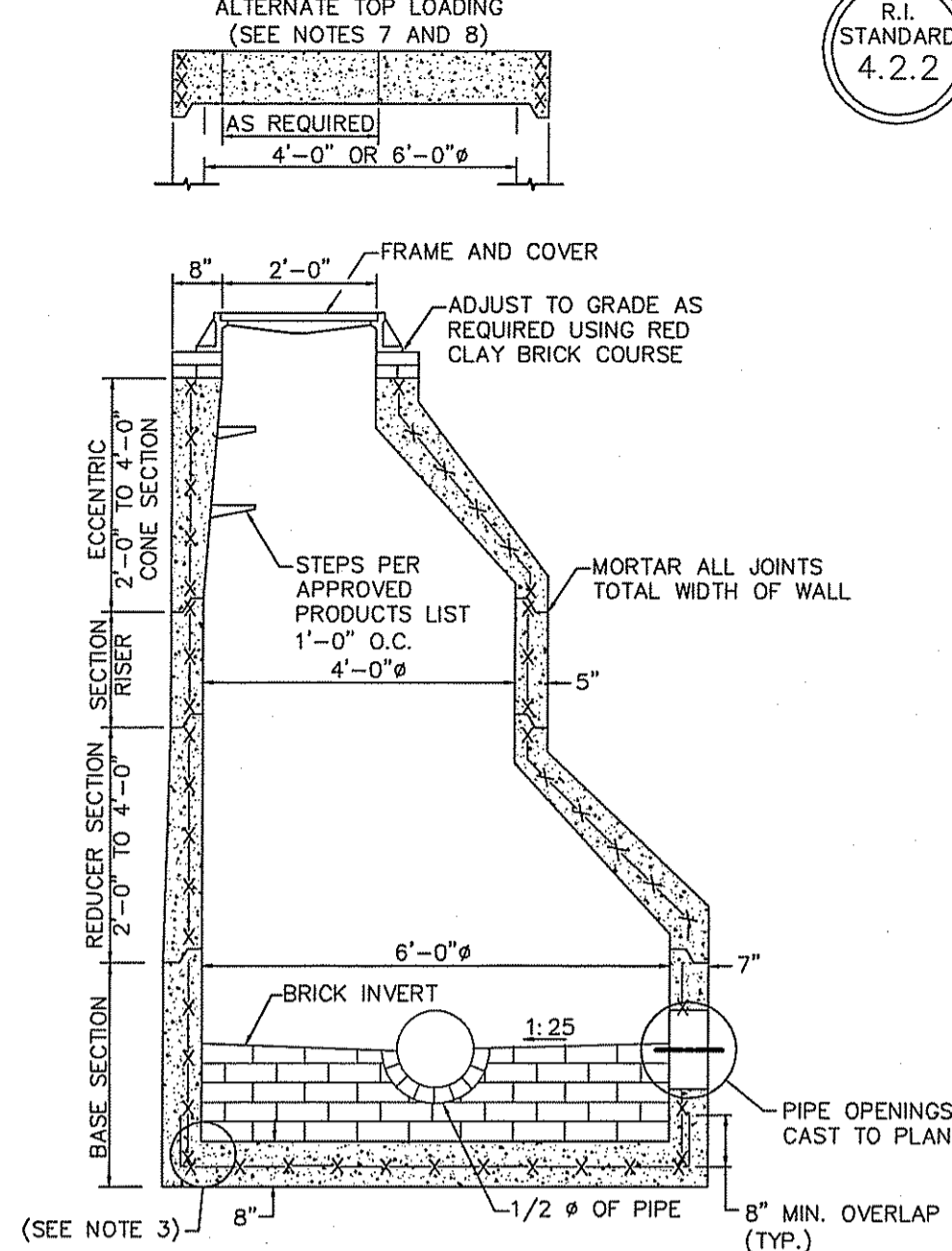
ALTERNATE TOP LOADING (SEE NOTES 7 AND 8)

R.I. STANDARD 4.2.0



ALTERNATE TOP LOADING (SEE NOTES 7 AND 8)

R.I. STANDARD 4.2.1



(SEE NOTE 3)

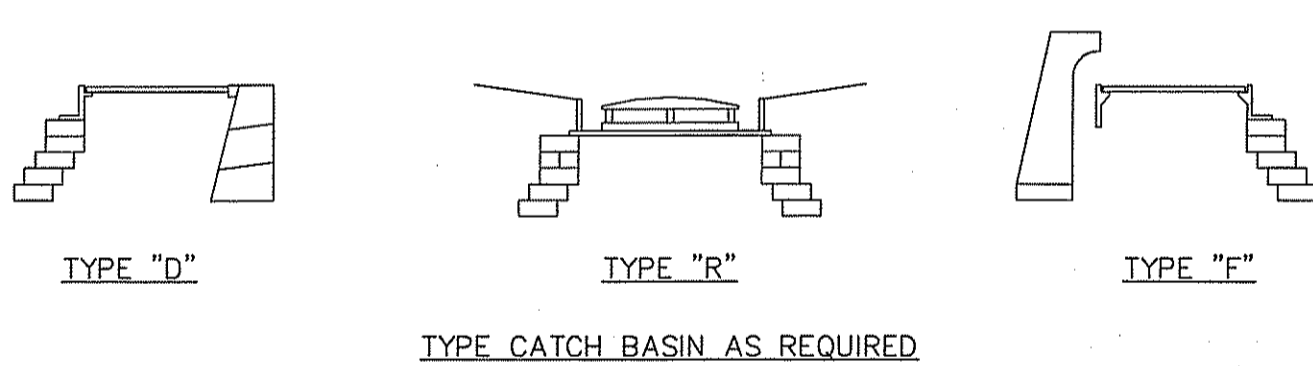
- NOTES:**
- SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
 - CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.15 SQ. IN./LIN. FT. (MINIMUM).
 - STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
 - ONE POUR MONOLITHIC BASE SECTION.
 - ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
 - STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
 - ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2).
 - ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
 - REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.

PRECAST 4'-0" ROUND MANHOLE

NOT TO SCALE

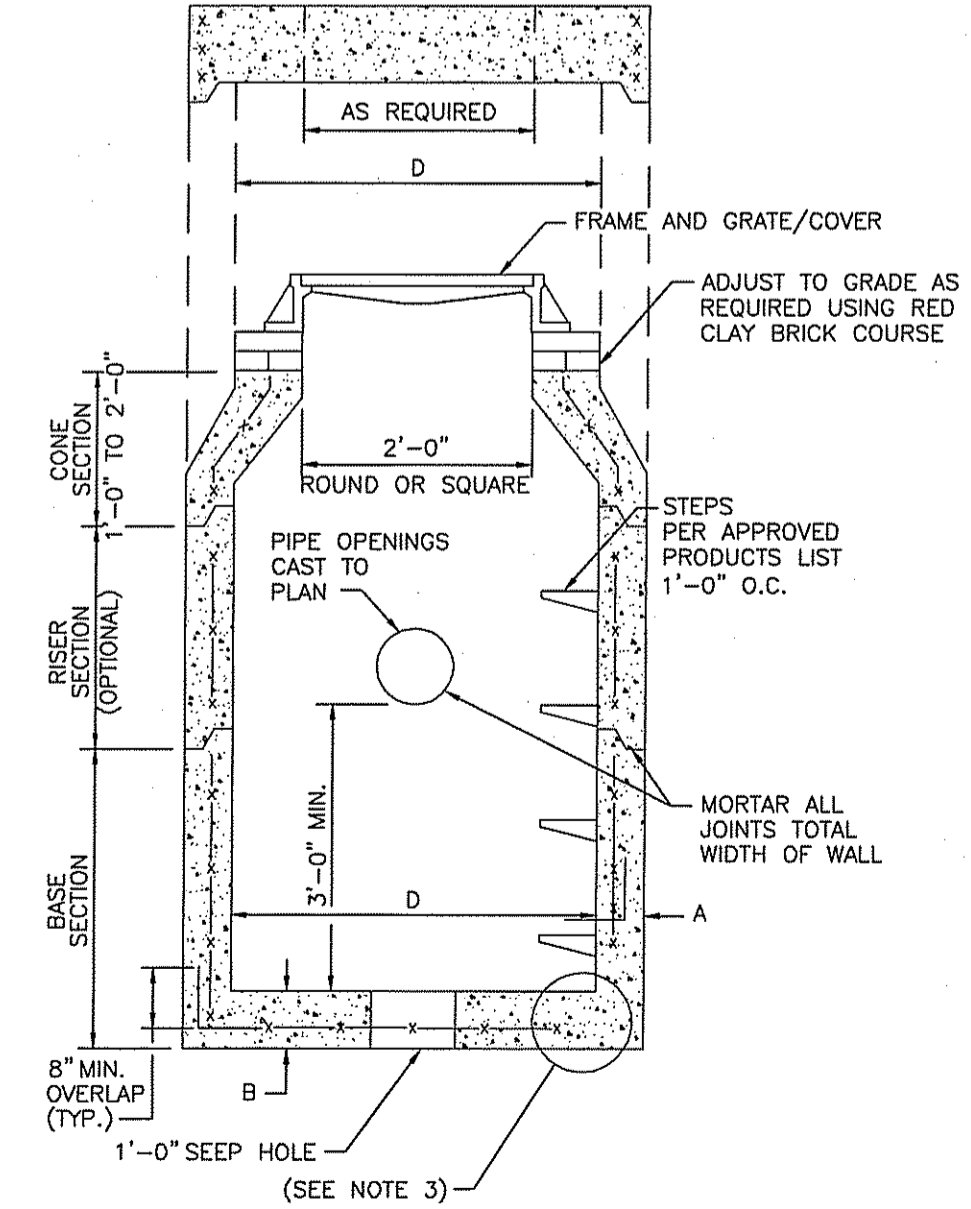
PRECAST 6'-0" ROUND MANHOLE

NOT TO SCALE



R.I. STANDARD 4.4.0

ALTERNATE TOP SLAB (SEE NOTES 10 AND 11)



NOTES:

- SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
- TABLE 1 FOR STEEL REINFORCEMENT REQUIREMENTS.
- STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
- STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
- ONE POUR MONOLITHIC BASE SECTION.
- ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
- CORBEL MADE OF RED CLAY BRICK WILL BE PERMITTED FOR THE "CONE SECTION" OF THE 4'-0" CATCH BASIN ONLY.
- FOR CATCH BASIN TYPES "D" AND "F" STEPS MUST BE INSTALLED ON THE CURB SIDE OF THE STRUCTURE.
- THE CENTERLINE OF THE OPENING MUST BE WITHIN 2'-0" FROM THE STEPS.
- ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2).
- ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
- REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.

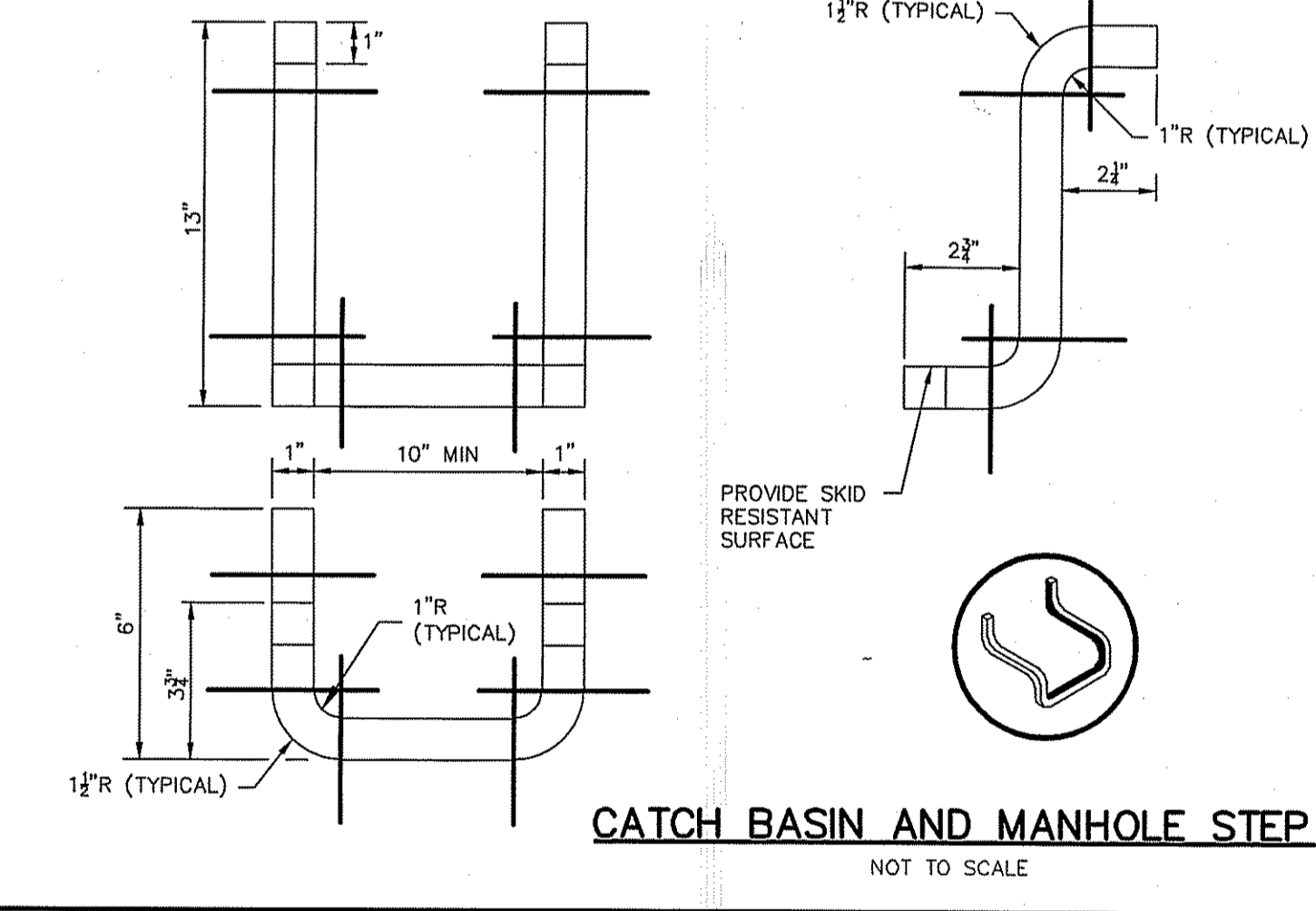
6' PRECAST ROUND CATCH BASIN

NOT TO SCALE

CATCH BASIN DIAMETER (D)	CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED*	
	A	B
4'-0"	5"	6"
5'-0"	6"	7"
6'-0"	7"	8"

* FOR LONGITUDINAL (VERTICAL STANDING) REINFORCEMENT REFER TO ASTM C478, ITEM 8.1.2

R.I. STANDARD 4.4.0

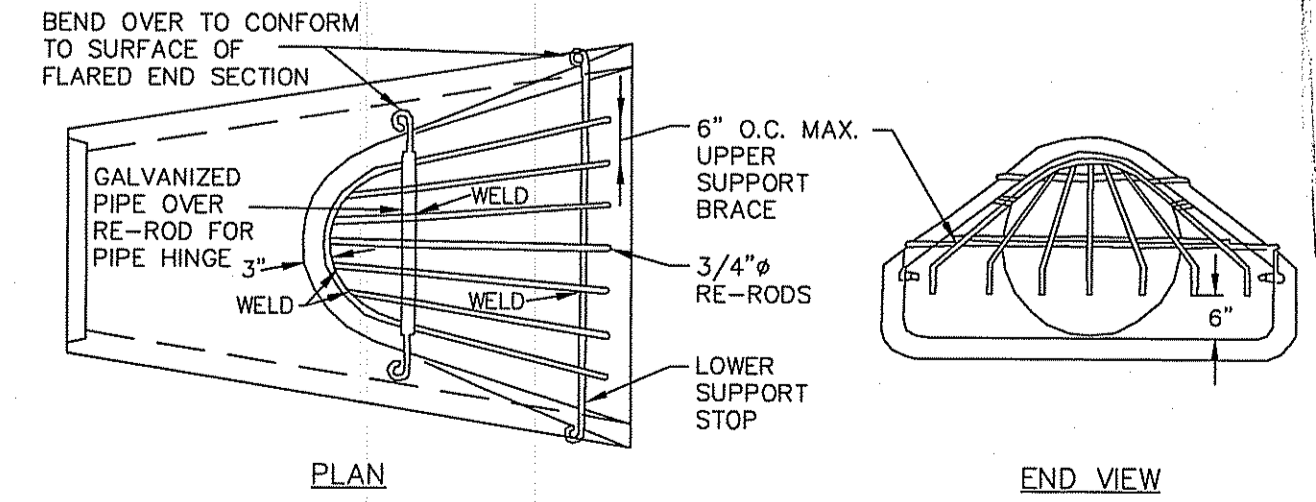


CATCH BASIN AND MANHOLE STEP

NOT TO SCALE

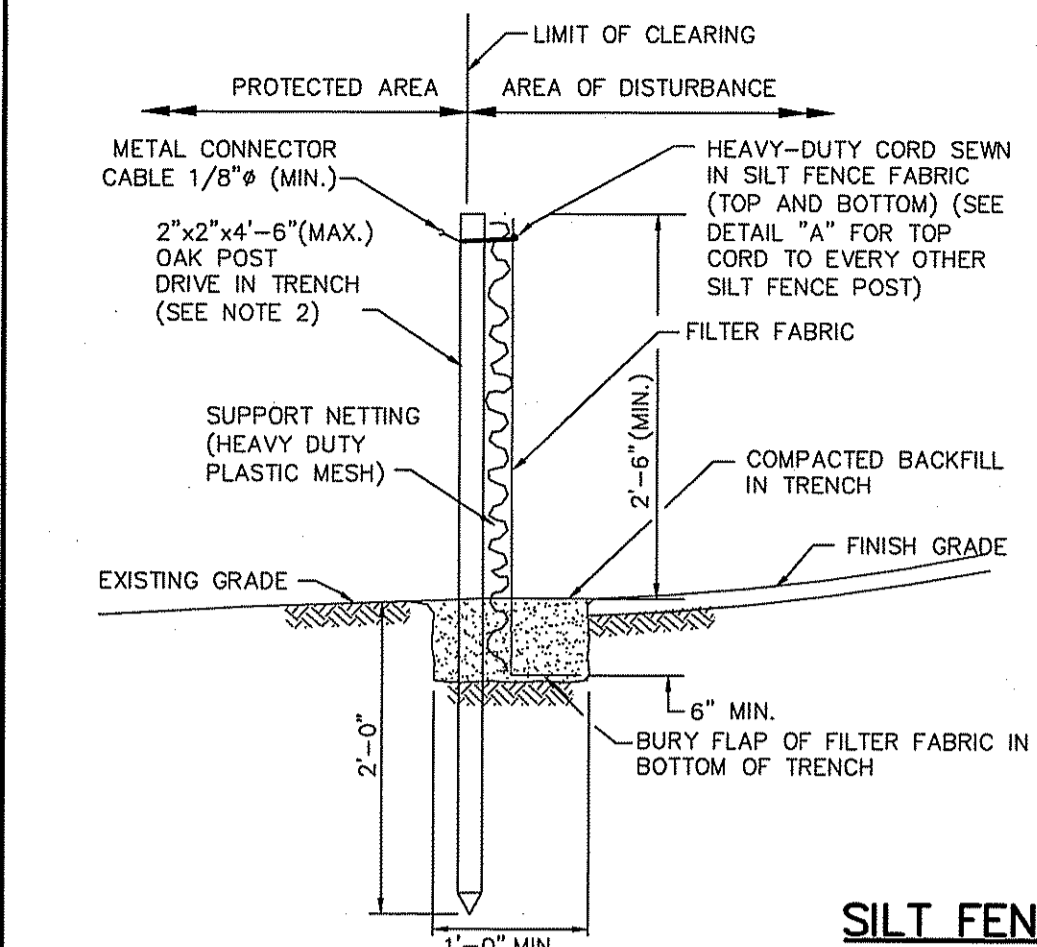
NOTES:

- ALL RE-RODS ARE TO BE WELDED.
- ALL RODS ARE TO BE GALVANIZED.



GRATING FOR FLARED END

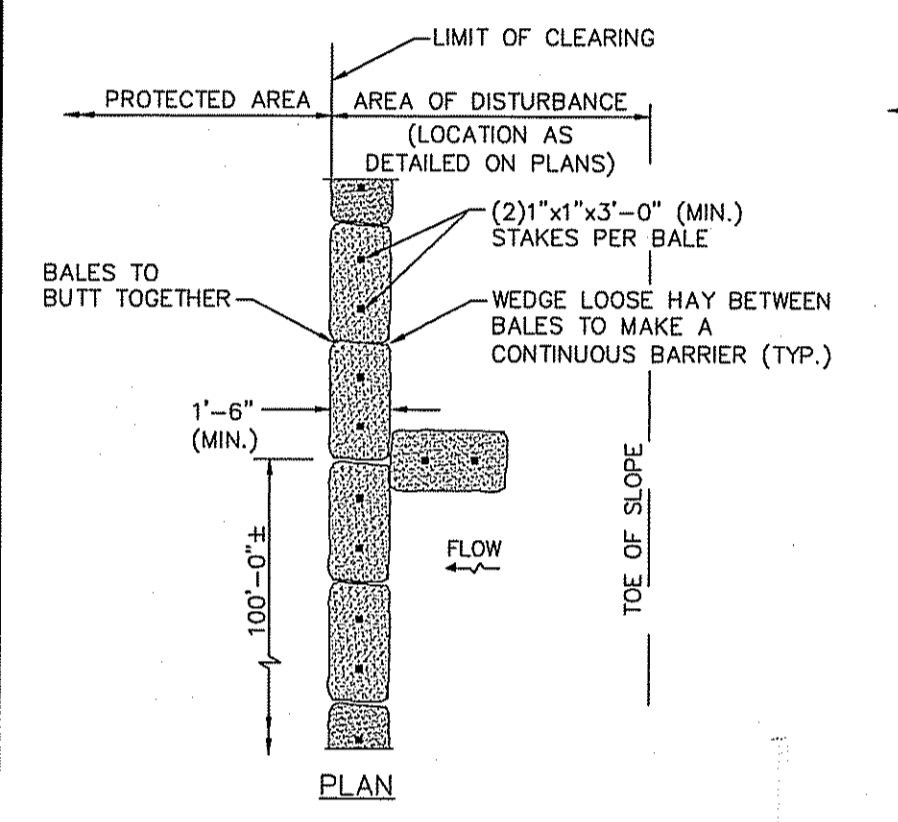
NOT TO SCALE



SILT FENCE DETAIL

NOT TO SCALE

- SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
- 2"x2"x4'-6" (MAX.) OAK POSTS FOR SILT FENCE SHALL BE LOCATED 8'-0" (MAX.) O.C. IN WETLAND AREAS AN 4'-0" (MAX.) O.C. IN WETLAND RAIVINE, GULLY OR DROP-OFF AREAS AS SHOWN ON PLANS.
- 1"x1"x4'-6" (MIN.) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
- SILT FENCE SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.



BALED HAY EROSION CHECK

NOT TO SCALE

NOTES:

- SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
- TO BE USED WHERE THE EXISTING GROUND SLOPES AWAY FROM THE HIGHWAY EMBANKMENT AS CALLED FOR ON PLANS.
- AT APPROXIMATE 100'-0" INTERVALS A BALE OF HAY IS TO BUTT PERPENDICULARLY.

EROSION CONTROL NOTES

- EROSION AND SEDIMENTATION CONTROL MEASURES, PERMANENT STABILIZATION, AND MAINTENANCE. THE SOIL EROSION, SEDIMENT, STABILIZATION, AND RUNOFF CONTROL WILL BE ACCOMPLISHED BY THE USE OF THE FOLLOWING DURING AND AFTER CONSTRUCTION:
 - ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER
 - 6.1.1 SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON. THE CONTRACTOR SHALL INITIATE APPROPRIATE VEGETATIVE PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED, UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS.
 - 6.1.2 ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEED OR PROTECTED.
 - 6.1.3 THE TOPSOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LIMBS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH RHODE ISLAND'S STANDARD SPECIFICATION, M.20.
 - 6.1.4 THE SEEDING DESIGN MIX SHALL BE COMPRISED OF THE FOLLOWING:

TYPE	LBS/AC
CREEPING RED FESCUE	75
KENTUCKY BLUE GRASS	15
COLONIAL BENT GRASS	5
PERENNIAL RYE GRASS	5

- EARLY SPRING OR LATE SUMMER SEEDING IS RECOMMENDED. SEED AS REQUIRED BY SOIL TESTING TO COMPLIMENT OR UPGRADE EXISTING CONDITIONS. THE SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS AND BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUMS FOR EACH VARIETY.
- 6.1.5 TEMPORARY TREATMENTS SHALL CONSIST OF HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING. TEMPORARY HAY MULCH TO BE TACKED IN PLACE WITH NYLON MESH NETTING. SIDE SLOPES OF BASINS SHALL BE TREATED WITH NORTH AMERICAN GREEN EROSION CONTROL BLANKETS SUCH AS S150 OR APPROVED EQUIVALENTS THAT DO NOT DEVELOP INTO THE PERIOD OF ONE YEAR AND AS ORDERED BY THE ENGINEER. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 2 TONS/ACRE.
- 6.1.6 ALL HAY BALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
- 6.1.7 ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH LOCAL MUNICIPAL REQUIREMENTS AND THE RHODE ISLAND STANDARD SPECIFICATION FOR ROAD AND BRIDGE SECTION 202.
- 6.1.8 STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED.
- 6.1.9 ALL AREAS PROPOSED TO BE VEGETATED THAT ARE DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. PERMANENTLY SEEDING AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND OF VEGETATION IS MAINTAINED. CATCH BASIN SLOPES SHALL BE MAINTAINED. BARE OR ERODED AREAS SHALL BE IMMEDIATELY REPAIRED AND RESEED BY THE CONTRACTOR. ACTIVITIES SHALL BE CONFINED TO WITHIN THE LIMIT OF WORK AS SHOWN ON THE PLANS.
- 6.1.10 MAXIMUM PERMANENT GRADED SLOPE WITHIN THE SITE IS TO BE 3:1 UNLESS NOTED OTHERWISE.
- 6.1.11 THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN. THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.

- 6.1.12 REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK" PREPARED BY THE USDA SOIL CONSERVATION SERVICE 1989 AS A GUIDE.
- 6.2 NON-STRUCTURAL MEASURES
 - 6.2.1 CONSTRUCTION TRAFFIC SHALL BE LIMITED TO THE ACCESS ROAD, UTILITY EASEMENTS AND AREAS TO BE GRADED.
 - 6.2.2 TOPSOIL SHALL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATION SHALL BE SUBJECT TO APPROVAL BY THE PROJECT ENGINEER. A SEDIMENT BARRIER SHALL SURROUND ALL TOPSOIL STOCKPILES.
 - 6.2.3 ALL TYPES OF WASTE GENERATED AT THE SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH STATE LAW AND/OR REGULATIONS. CONSTRUCTION DEBRIS SHALL BE DISPOSED OF DAILY TO AVOID EXPOSURE TO PRECIPITATION.
 - 6.2.4 THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION OF NON-STRUCTURAL MEASURES AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.
 - 6.2.5 REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK" PREPARED BY THE USDA SOIL CONSERVATION SERVICE 1989, AS A GUIDE.

- 6.3 STRUCTURAL MEASURES
 - 6.3.1 RUNOFF WATER QUALITY IS IMPROVED UTILIZING WATER QUALITY/SEDIMENTATION AND EXTENDED DRY DETENTION BASINS. CONSTRUCTION OF THE DETENTION BASINS SHALL BE SUPERVISED BY THE DESIGN ENGINEER. THE DETENTION BASINS SHALL BE BUILT TO CONTROL RUNOFF FOR 2 THROUGH 100 YEAR STORM FREQUENCIES. SIDE SLOPES WITHIN THE DETENTION BASINS SHALL BE 3:1 MAXIMUM, UNLESS NOTED OTHERWISE. ALL EMBANKMENTS OF THE BASINS SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH R.I. STANDARD SPECIFICATION SECTION 202. THE EMERGENCY SPILLWAY SHALL BE PROTECTED BY RIP RAP DOWNSTREAM AND UPSTREAM. A GRADUATED GAGE IS TO BE SET WITHIN THE BASIN TO MONITOR ACCUMULATED SEDIMENTS. A REPORT AND PLAN OF AS-BUILT CONSTRUCTION SHALL BE AVAILABLE TO THE TOWN OF WEST WARWICK.
 - 6.3.2 A STONE STABILIZATION PAD IS LOCATED AT THE SITE ENTRANCE TO REDUCE THE TRACKING OR FLOWING OF SEDIMENT INTO THE PUBLIC RIGHT OF WAY.
 - 6.3.3 RIP RAP APRONS AND/OR LEVEL SPREADERS SHALL BE INSTALLED AT THE OUTLETS OF ALL DRAINAGE PIPES.
 - 6.3.4 HAY BALES OR SILT FENCE SHALL BE INSTALLED DOWNSTREAM OUTSIDE THE LIMITS OF ANY PROPOSED CONSTRUCTION AS SHOWN ON THE SITE PLANS AND PRIOR TO THE COMMENCEMENT OF THE PROPOSED ALTERATION.
 - 6.3.5 THE CONSTRUCTION SUPERINTENDENT SHALL HAVE THE OVERALL RESPONSIBILITY FOR STRUCTURAL MEASURE IMPLEMENTATION AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.

- 6.4 MAINTENANCE: SHORT TERM / LONG TERM
 - 6.4.1 THE STONE STABILIZATION PADS AT THE SITE ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR. THE MAINTENANCE SHALL INCLUDE TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND OR AS DIRECTED BY THE ENGINEER. ALL SEDIMENTS SPILLED, DROPPED, WASHED, OR TRACKED ON THE PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
 - 6.4.2 ALL HAY BALES/SILT FENCE, TEMPORARY TREATMENTS (HAY, STRAW, ETC.), AND TEMPORARY PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. HAY BALES/SILT FENCE SHALL BE INSPECTED BY THE CONTRACTOR WITHIN 24 HOURS AFTER EACH STORM EVENT OR EVERY 7 DAYS, WHICHEVER COMES FIRST, FOR UNDERMINING AND DETERIORATION. A STORM EVENT SHALL BE DEFINED AS REPAIRED OR REPLACED AS WARRANTED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE HAY BALES/SILT FENCE BECOMES FILLED IN WITH SEDIMENT. THE HAY BALES/SILT FENCE SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED. FOLLOWING CONFIRMATION FROM THE TOWN OF WEST WARWICK AND OR THE DESIGN ENGINEER THAT AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER HAS BEEN ESTABLISHED THE HAY BALES/SILT FENCE SHALL BE REMOVED.

- 6.5 FINISH PERMANENT STABILIZATION. REPAIR DRAINAGE OUTLETS AND BASINS AS REQUIRED. TREE LIMBS, LEAVES, COBBLES, Boulders, ETC. SHALL BE REMOVED FROM THE BOTTOM OF THE BASINS BEFORE THE APPLICATION OF TOPSOIL.
- 6.5.1 SWEEP THE ROADWAY TO REMOVE ALL SEDIMENTS.
- 6.5.2 THE CONTRACTOR SHALL CLEAN AND FLUSH THE DRAINAGE STRUCTURES AND PIPES AT THE END OF CONSTRUCTION AND ALL ACCUMULATED SEDIMENTS IN THE DETENTION BASINS SHALL BE REMOVED.
- 6.5.3 REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES FOLLOWING VEGETATIVE ESTABLISHMENT OF ALL DISTURBED AREAS.

- 6.4.3 THE CONTRACTOR SHALL MAINTAIN ALL TOPSOIL STOCKPILES AND SEDIMENT BARRIERS THROUGHOUT CONSTRUCTION. EXTREME CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT SPILL OVER THE SEDIMENT BARRIER. HAY BALES OR SILT FENCE SHALL BE STAKED AROUND THE STOCKPILES.
- 6.4.4 ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEED, PROTECTED, AND MAINTAINED BY THE CONTRACTOR FOLLOWING FINAL GRADING AND CONSTRUCTION. THE CONTRACTOR SHALL CHECK REGULARLY ALL SEEDED AREAS TO SEE THAT A GOOD STAND OF VEGETATION IS MAINTAINED. THE CONTRACTOR MUST REPAIR OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.
- 6.4.5 THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF THE BASINS DURING AND UP TO A YEAR AFTER COMPLETION OF CONSTRUCTION AND ACCEPTANCE BY THE OWNER. THE OWNER IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE THEREAFTER. THE CONTRACTOR'S MAINTENANCE/INSPECTION RESPONSIBILITIES SHALL INCLUDE RESEEDING ANY UNSTABILIZED AREAS WITHIN THE BASINS AT NO ADDITIONAL EXPENSE TO THE OWNER, REMOVING ACCUMULATED SILT WHEN SEDIMENTS IN THE BASINS REACHES THE HEIGHT SPECIFIED IN THE SEDIMENT VOLUME CALCULATIONS AND MAINTAINING THE GRASS TO A GROWING HEIGHT BETWEEN 2"-10". THE CONTRACTOR SHALL INSPECT RIP RAP PADS AFTER EACH STORM AND REPAIR AS NECESSARY. THE OWNER'S MAINTENANCE/INSPECTION RESPONSIBILITIES SHALL INCLUDE INSPECTION OF THE BASINS AND RIP RAP PADS SEMIANNUALLY AND AFTER MAJOR STORMS. IF REPAIRS ARE NEEDED, THEY SHALL BE CARRIED OUT IMMEDIATELY. THE OWNER SHALL MAINTAIN A GOOD VEGETATIVE COVER (GRASS BETWEEN 2" AND 4" HIGH, VEGETATION AS SPECIFIED) THE BOTTOM OF THE DETENTION BASINS SHALL BE INSPECTED ON A SEMI-ANNUAL BASIS AND ACCUMULATED SEDIMENTS SHALL BE REMOVED WHEN THEY REACH THE HEIGHT SPECIFIED IN THE SEDIMENT VOLUME CALCULATIONS OR EVERY 10 YEARS, WHICHEVER COMES FIRST.
- 6.4.6 THE CONTRACTOR SHALL MAINTAIN THE DRAINAGE NETWORK DURING AND UP TO A YEAR AFTER COMPLETION OF CONSTRUCTION AND ACCEPTANCE BY THE OWNER. THE OWNER IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE THEREAFTER. THE ACCUMULATED SEDIMENTS IN THE CATCH BASINS SHALL BE REMOVED AND DRAINAGE PIPES FLUSHED BY THE CONTRACTOR AT THE END OF CONSTRUCTION. CATCH BASIN SUMP SHALL BE CHECKED ANNUALLY AND SEDIMENTS SHALL BE REMOVED IF THEY EXCEED 6" DEPTH OR EVERY 10 YEARS, WHICHEVER COMES FIRST.
- 6.4.7 THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR THE MAINTENANCE PROGRAM DURING THE CONSTRUCTION PHASE AND FOR A PERIOD OF ONE YEAR AFTER CONSTRUCTION. THE SUPERINTENDENT SHALL SEE THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.
- 6.4.8 AFTER ACCEPTANCE OF THE ROADWAY BY THE OWNER, THE OWNER SHALL HAVE OVERALL RESPONSIBILITY FOR IMPLEMENTING THE MAINTENANCE PROGRAM FOR THE DRAINAGE NETWORK.

- 6.5 SEQUENCE OF CONSTRUCTION AND STAGING OF LAND DISTURBING ACTIVITIES
 - 6.5.1 CONSTRUCTION TO BEGIN IN THE FALL OF 2007 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.
 - 6.5.2 SURVEY AND STAKE CENTERLINE OF THE PROPOSED ROADS, DETENTION BASINS, DRAINAGE, AND LIMIT OF SEDIMENTATION BARRIERS/LIMIT OF DISTURBANCE.
 - 6.5.3 PLACE SEDIMENTATION BARRIERS (HAY BALES OR SILT FENCE) AS SHOWN ON THE PLANS AND STAKED OUT IN THE FIELD. IN NO CASE IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION BARRIERS.
 - 6.5.4 BEGIN DEMOLITION OF EXISTING DRAINAGE AND PAVEMENT AS SHOWN ON PLANS.
 - 6.5.5 BEGIN CLEARING AND GRUBBING IN AREA OF ROADWAYS AND DETENTION BASINS. TOPSOIL IS TO BE STRIPPED FROM THE AREA OF THE PROPOSED ROADWAYS AND DETENTION BASINS AND STOCKPILED IN APPROVED LOCATIONS. TOPSOIL STOCKPILES ARE TO BE PROTECTED BY A ROW OF SEDIMENTATION BARRIERS AND COVERED OR TEMPORARILY SEEDED.
 - 6.5.6 EXCAVATE AND GRADE THE PROPOSED DETENTION BASINS AND ROADWAYS. THE DETENTION BASINS SHALL BE PERMANENTLY SEEDED FOLLOWING FINISH GRADING.
 - 6.5.7 INSTALL DRAIN PIPING, DRAINAGE MANHOLES AND CATCH BASINS BEGINNING AT THE DETENTION BASINS AND WORKING UPGRADIENT. PROTECT DISCHARGE OUTLETS WITH RIP-RAP APRONS. PLACE EROSION CONTROLS AT THE DISCHARGE POINTS AND SEED THE DETENTION BASINS AND DISTURBED AREAS OUTSIDE OF THE AREA TO BE PAVED. THE DETENTION BASINS AND DRAINAGE NETWORK ARE TO BE PROTECTED FROM RUNOFF UNTIL ALL UNSTABILIZED AREAS ARE STABILIZED WITH VEGETATION.
 - 6.5.8 ONCE THE INSTALLATION OF THE DRAINAGE NETWORK IS COMPLETE INSTALL THE WATERLINE, INDIVIDUAL WATER SERVICES FOR BUILDINGS AND OTHER UNDERGROUND UTILITIES SUCH AS: ELECTRIC, TELEPHONE, AND CABLE IN ACCORDANCE WITH THE APPROVED FINAL PLANS.
 - 6.5.9 PLACE COMPACTED GRAVEL FOUNDATION AND ROUGH GRADE THE ROADWAY IN ACCORDANCE WITH THE SITE PLANS AND IN ACCORDANCE WITH THE TOWN OF WEST WARWICK, RHODE ISLAND, LAND DEVELOPMENT AND SUBDIVISION REGULATIONS.
 - 6.5.10 PLACE BITUMINOUS ASPHALT BINDER PER SITE PLANS AND IN ACCORDANCE WITH THE TOWN OF WEST WARWICK, RHODE ISLAND, LAND DEVELOPMENT AND SUBDIVISION REGULATIONS.
 - 6.5.11 ONCE BITUMINOUS ASPHALT BINDER COURSE IS PLACED, CONSTRUCTION OF INDIVIDUAL DWELLINGS MAY COMMENCE. CONSTRUCTION TO INCLUDE SURVEYING AND STAKING OF THE PROPOSED LIMIT OF CLEARING (IF NOT COMPLETED WITH 6.2). INSTALLATION OF SEDIMENTATION BARRIERS, CLEARING AND GRUBBING FOR INDIVIDUAL DWELLINGS. REMOVAL OF TOPSOIL, GRADING, EXCAVATION FOR FOUNDATION, DWELLING CONSTRUCTION, WELL AND WATER SERVICE INSTALLATION, DRIVEWAY INSTALLATION AND LANDSCAPING.
 - 6.5.12 ONCE THE MAJORITY OF THE SITE IS STABILIZED THE DETENTION BASINS AND DRAINAGE NETWORK MAY BE BROUGHT ONLINE WITH THE APPROVAL OF THE DESIGN ENGINEER OR THE TOWN OF WEST WARWICK.
 - 6.5.13 ONCE THE MAJORITY OF THE PROPOSED DWELLINGS ARE BUILT AND THE TOWN HAS APPROVED THAT THE BITUMINOUS ASPHALT IS READY FOR BITUMINOUS ASPHALT TOP COAT, INSTALL BITUMINOUS BEFOM, REGRADE LOAM AND SEED IN RIGHT OF WAY. ADJUST STRUCTURES AND PLACE FINAL BITUMINOUS ASPHALT PAVEMENT.
 - 6.5.14 FINISH PERMANENT STABILIZATION. REPAIR DRAINAGE OUTLETS AND BASINS AS REQUIRED. TREE LIMBS, LEAVES, COBBLES, Boulders, ETC. SHALL BE REMOVED FROM THE BOTTOM OF THE BASINS BEFORE THE APPLICATION OF TOPSOIL.
 - 6.5.15 SWEEP THE ROADWAY TO REMOVE ALL SEDIMENTS.
 - 6.5.16 THE CONTRACTOR SHALL CLEAN AND FLUSH THE DRAINAGE STRUCTURES AND PIPES AT THE END OF CONSTRUCTION AND ALL ACCUMULATED SEDIMENTS IN THE DETENTION BASINS SHALL BE REMOVED.
 - 6.5.17 REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES FOLLOWING VEGETATIVE ESTABLISHMENT OF ALL DISTURBED AREAS.

DETAIL SHEET

Shipwreck Falls Lodge
ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31
WEST WARWICK, RHODE ISLAND

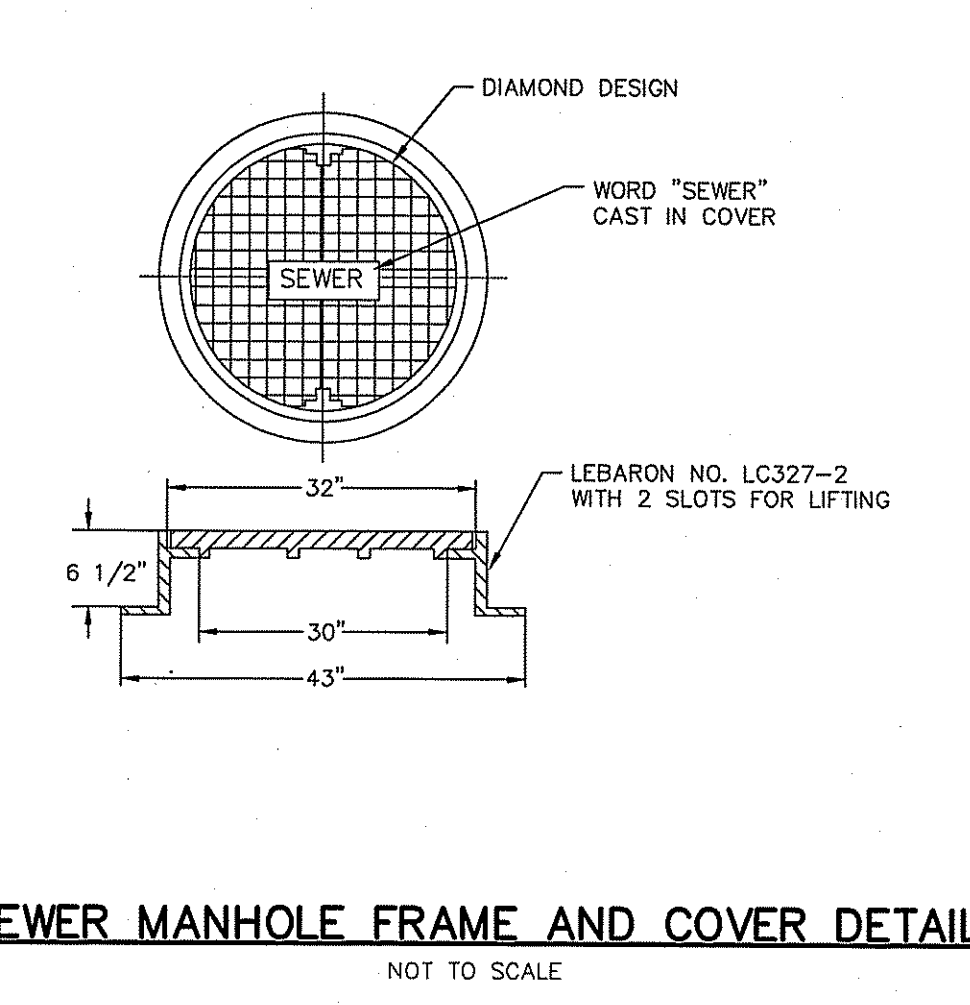
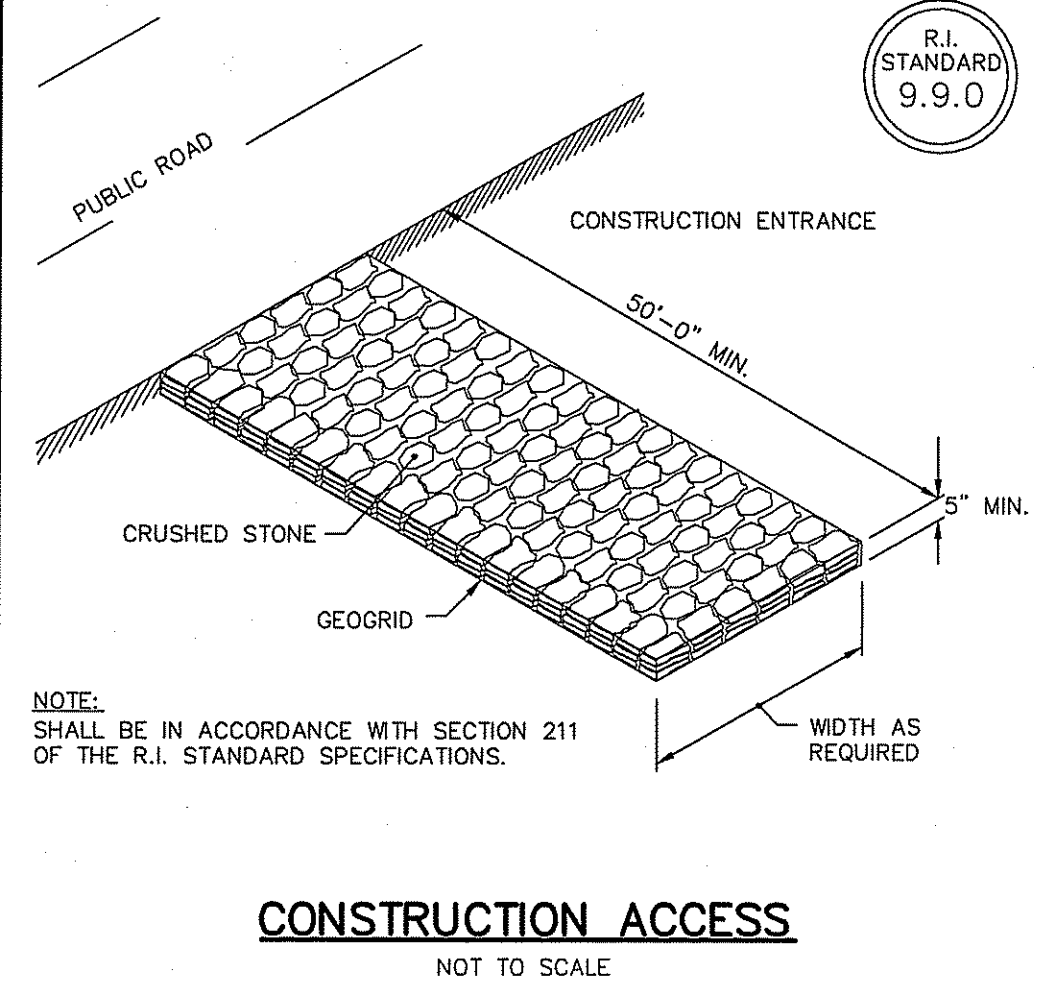
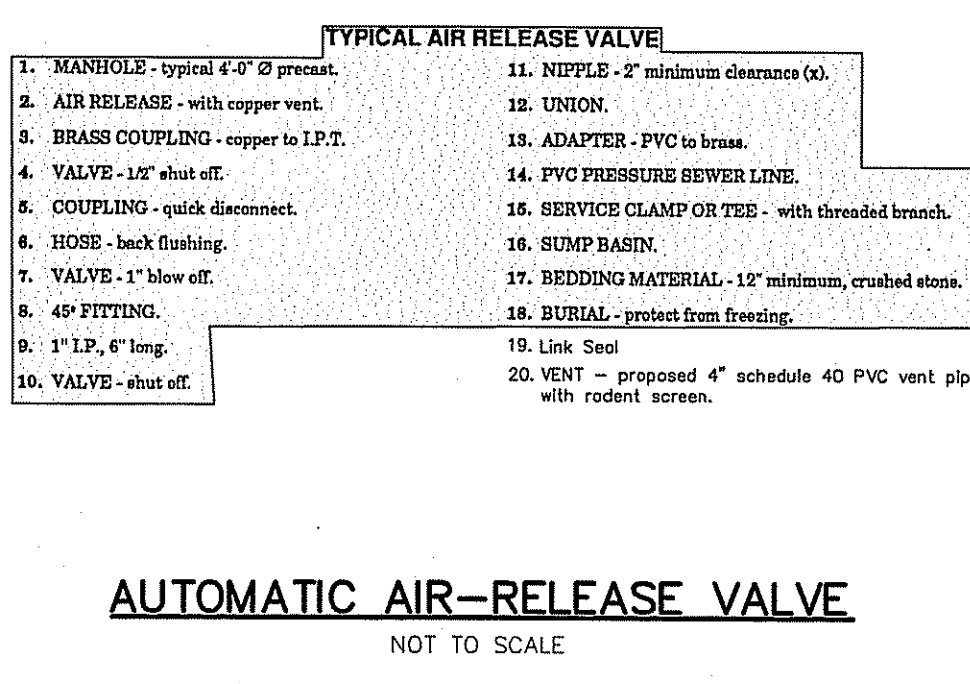
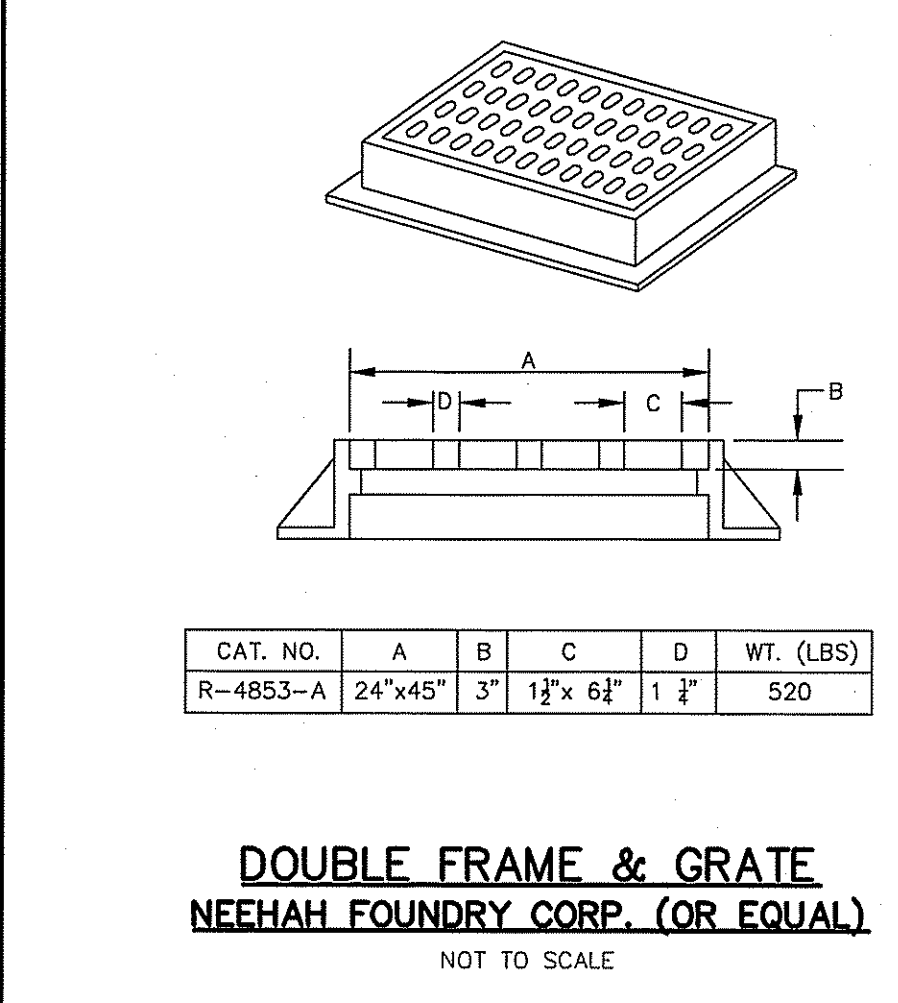
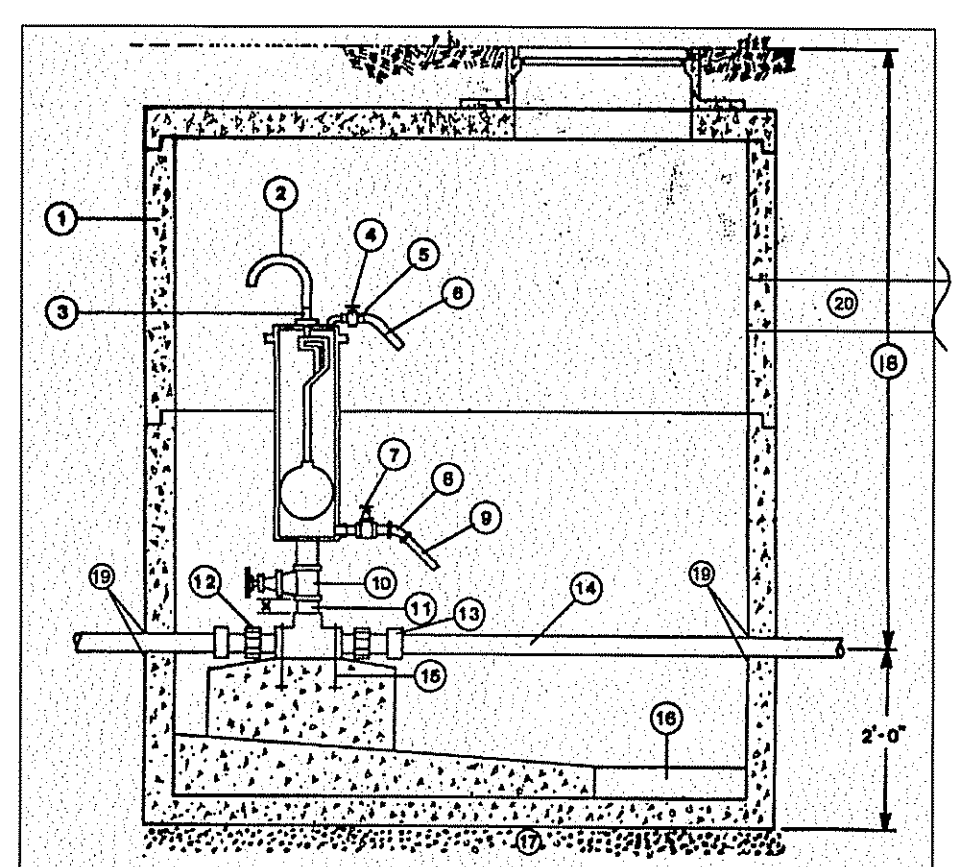
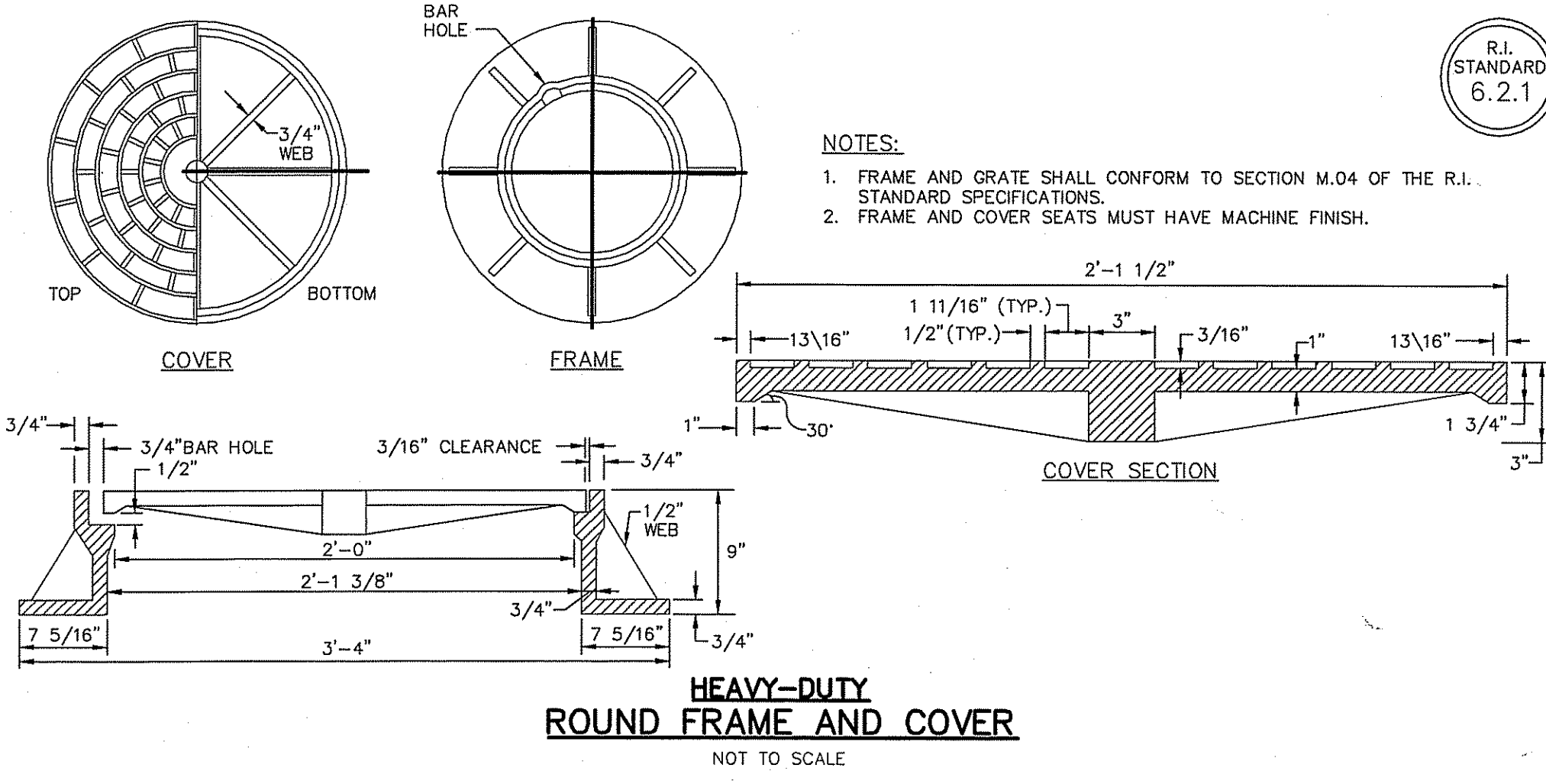
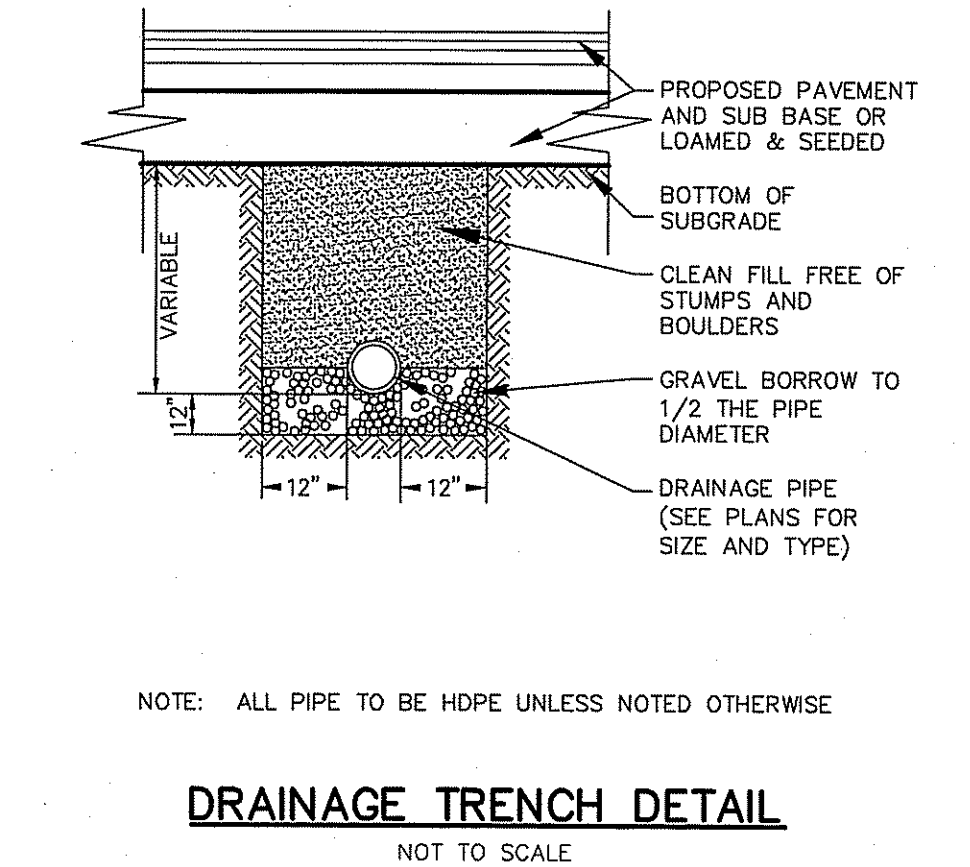
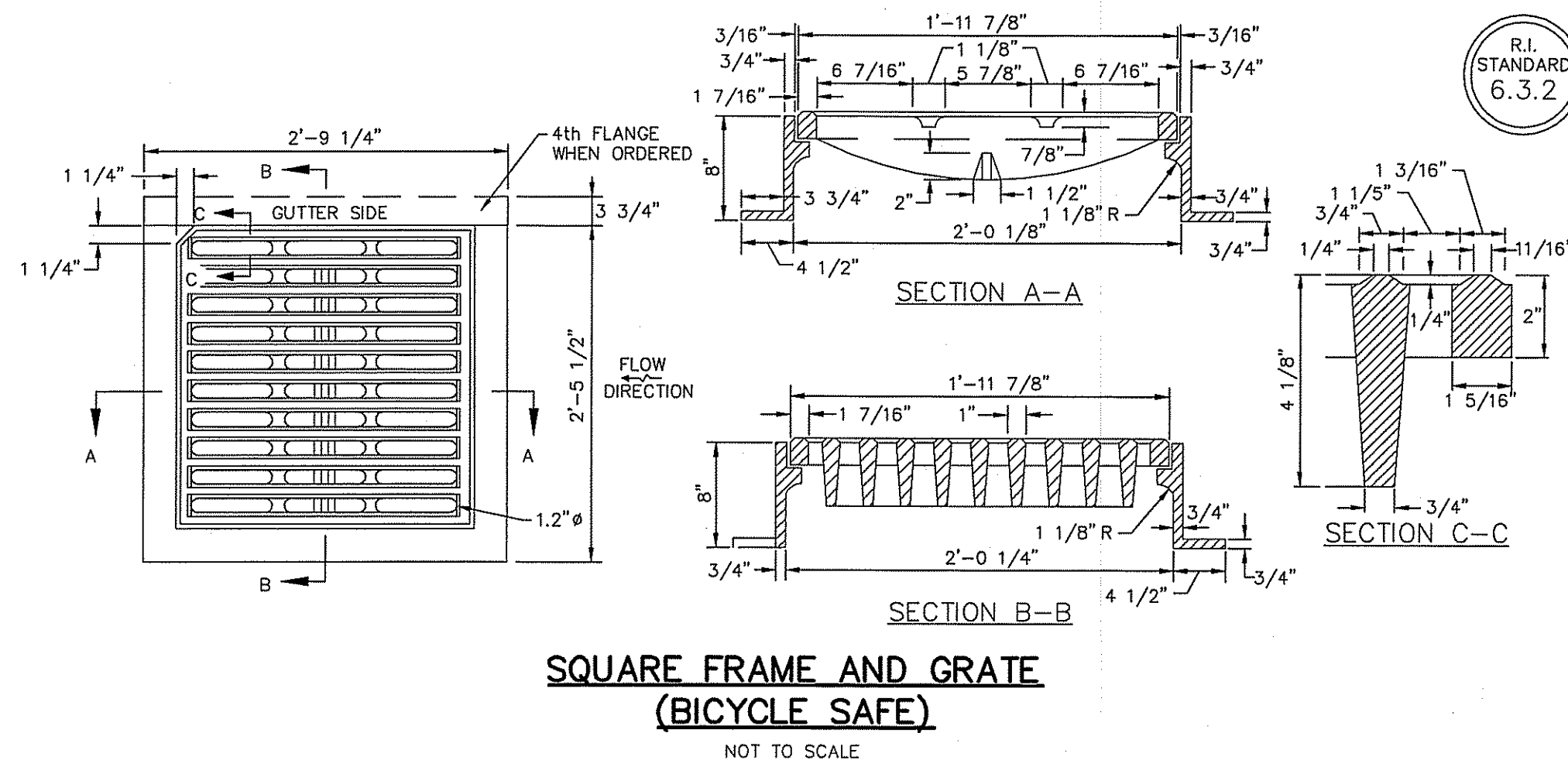
PREPARED BY
DiPrete Engineering Associates, Inc.
ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
TWO STAFFORD COURT
CRANSTON, R.I. 02920
(401) 943-1000 FAX: (401) 464-6006

PREPARED FOR
Dial Family Resorts
11506 NICHOLAS STREET, #200
OMAHA, NEBRASKA 68154
PHONE: (402) 493-2800

LEONARD R. BRADLEY, JR.
No. 6610
REGISTERED PROFESSIONAL ENGINEER
CIVIL

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WATERSHED PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUL 12 2007 FILE # 07-0193
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles J. ...



SEWER MAIN INSTALLATION NOTES

- 1.0 PURPOSE
1. THE DETAILED CONSTRUCTION SEQUENCE IS PROVIDED FOR THE PROPOSED SEWER FORCE MAIN EXTENSION. THE CONSTRUCTION SEQUENCE IS DIVIDED INTO INCLUDING SITE PREPARATION, SEWER AND WATER MAIN. THE CONSTRUCTION SEQUENCE PROVIDES THE GREATEST LEVEL OF PROTECTION TO THE EXISTING ADJUTING WETLAND AND STREAM AREA WEST AND NORTH OF THE AREA UTILIZED FOR THE SEWER AND WATER ROUTE.
- 2.0 SITE PREPARATION AND CONSTRUCTION EQUIPMENT
1. THE CONSTRUCTION SEQUENCE AND EQUIPMENT ARE USED FOR CONSTRUCTION OF THE SEWER FORCE MAIN AND WATER MAIN.
- 2.1 SITE PREPARATION:
1. CONSTRUCTION OF THE SEWER MAIN WITHIN PERIMETER AND FRESHWATER WETLANDS TO OCCUR UPON RECEIPTS OF THE REQUIRED APPROVALS.
- NOTE: THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF THE SITE CONDITIONS ENCOUNTERED IMPACT THE CONSTRUCTION SEQUENCE DETAILED.
2. SURVEY AND FLAG THE LIMIT OF WORK.
3. CLEAR AND TRIM EXISTING BRUSH WITHIN THE LIMIT OF WORK. NO TREES BEYOND THE LIMIT OF WORK SHALL BE REMOVED WITH THE EXCEPTION OF BRANCHES OVERHANGING THE CONSTRUCTION AREA THAT MAY NEED TO BE TRIMMED TO ALLOW FOR SAFE EQUIPMENT OPERATION. CHIP AND REMOVE ALL BRANCHES AND BRUSH. DISCARD CHIPS TO UPLAND LOCATION ONLY.
- NOTE: NO HEAVY EQUIPMENT IS ALLOWED WITHIN THE PERIMETER OR FRESHWATER WETLANDS DURING THE SITE PREPARATION PHASE OF THE CONSTRUCTION SEQUENCE.
4. PLACE HAY BALES OR SILT FENCE AND STAKE ACCORDING TO THE PLAN DETAILS.
5. PRIOR TO CONSTRUCTION COMMENCEMENT, THE DESIGN ENGINEER SHALL INSPECT THE EROSION CONTROLS AND LIMIT OF WORK. FOLLOWING THIS INSPECTION, A LETTER OF FINDINGS WILL BE SUBMITTED TO RIDEM OFFICE OF WATER RESOURCES FRESHWATER WETLANDS SECTION.
- 2.2 CONSTRUCTION EQUIPMENT
1. AN EXCAVATOR WILL BE USED TO EXCAVATE SEWER AND WATER TRENCH. PLACE SEGMENTS, LAY BEDDING MATERIALS, AND BACKFILL TRENCHES. A NARROW BUCKET (2±) SHALL BE USED FOR THE SEWER AND WATER CONSTRUCTION.
2. ONE BACKHOE OR SMALL LOADER TO FEED BEDDING MATERIALS FROM PROPOSED STOCKPILE LOCATIONS FOR PIPE PLACEMENT OR TO REMOVE EXCESS EXCAVATED MATERIALS NOT NEEDED TO BACKFILL TRENCHES FOLLOWING PIPE PLACEMENT. OPTION TO USE A DUMP TRUCK IF SITE CONDITIONS ARE DRY AND PERMIT ITS ACCESSIBILITY TO THE AREAS UNDER CONSTRUCTION.
3. NARROW, SMALL SIZE BULLDOZER TO GRADE FINISHED TRENCH AND LOAM TO ORIGINAL ELEVATIONS.
- 3.0 FORCE MAIN SEWER AND WATER
1. THE FOLLOWING CONSTRUCTION SEQUENCE IS SPECIFIC TO THE CONSTRUCTION OF THE SEWER FORCE MAIN.
- 3.1 CONSTRUCTION PROCEDURE
1. THE EXCAVATOR WILL EXCAVATE THE TRENCH, DEPOSIT THE BEDDING MATERIALS, AND BACKFILL THE EXCAVATION FOLLOWING PIPE PLACEMENT. DURING BACKFILLING, THE WATER AND SEWER FORCE MAIN WILL BE COVERED WITH TRACING WIRE AND DETECTABLE UNDERGROUND MARKING TAPE. THE TAPE WILL BE MARKED. THE TRENCH SPOILS WILL BE DEPOSITED AT THE SIDES OF THE TRENCH WHERE THE LIMITS OF WORK PERMIT. CAST ON THE OPPOSITE SIDE OF THE EXCAVATOR WHERE THE LIMITS OF WORK ARE TOO RESTRICTIVE, OR UTILIZED TO BACKFILL INSTALLED PORTIONS OF THE TRENCH.
2. THE SOURCE OF THE BEDDING MATERIALS FEEDING THE EXCAVATOR SHALL BE FROM A BACKHOE, SMALL LOADER, OR A DUMP TRUCK DEPENDING ON SITE CONDITIONS AND ACCESSIBILITY.
3. DURING THE CONSTRUCTION PROCESS THE TESTING OF SEWER PIPE SHALL BE PERFORMED. ANY LEAKS ENCOUNTERED DURING TESTING WILL BE FIXED WHILE THE LIMIT OF WORK WILL BE MAINTAINED.
- NOTE: EXCESS TRENCH SPOILS WILL BE REMOVED BY DUMP TRUCK, LOADER, OR BACKHOE TO AN UPLAND LOCATION IN THE DEVELOPMENT AREA OUTSIDE OF ALL RIDEM JURISDICTIONAL WETLANDS.
- 3.2 RESTORATION
1. FOLLOWING ESTABLISHMENT OF VEGETATION, COLLECTED SEDIMENTS ALONG THE LIMIT OF WORK SHALL BE REMOVED WITH THE EROSION CONTROLS AND DEPOSITED IN AN UPLAND LOCATION OUTSIDE OF ALL RIDEM JURISDICTIONAL WETLANDS.
2. THE DESIGN ENGINEER SHALL PERFORM SEMIANNUAL INSPECTIONS OF THE DISTURBED AREA UNTIL VEGETATIVE COVER IS ESTABLISHED.
- 4.0 SEDIMENT REMOVAL
1. SEDIMENTS WITHIN THE LIMIT OF DISTURBANCE MAY BE REMOVED WITH CONSTRUCTION EQUIPMENT SUCH AS A BACKHOE OR EXCAVATOR.
2. NO REMOVAL OF SEDIMENTS BEYOND THE LIMITS OF WORK SHALL BE PERMITTED.
3. SEDIMENTS REMOVED FROM ROUTE OF THE SEWER MAIN INSTALLATION SHALL BE DISPOSED IN UPLAND LOCATIONS ONLY BEYOND RIDEM JURISDICTIONAL WETLAND AREAS.

SEWER LINE/WATER MAIN SEPERATION POLICY FOR DESIGN OF SANITARY SEWERS

- A. LATERAL PLACEMENT OF SEWERS AND WATER MAINS SEWERS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATERMAIN. THE DISTANCE SHALL BE MEASURED EDGE-TO-EDGE. THERE IS NO MINIMUM VERTICAL SEPERATION REQUIRED PROVIDED THE 10 FOOT HORIZONTAL SEPERATION IS MAINTAINED.
- IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPERATION, THE DIVISION MAY ALLOW DEVIATION ON A CASE BY CASE BASIS, IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE SEWER CLOSER TO A WATERMAIN, PROVIDED THAT:
1. THE SEWER AND WATERMAIN ARE LAID IN SEPERATE TRENCHES, OR
 2. THE SEWER AND WATERMAIN MAY BE INSTALLED IN THE SAME TRENCH WITH THE WATERMAIN PLACED ON A BENCH OF UNDISTURBED EARTH, AND
 3. IN EITHER CASE, THE CROWN OF THE SEWER SHALL BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATERMAIN.
- IN SITUATIONS WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPERATION AS STIPULATED ABOVE, THE FOLLOWING PROTECTION SHALL BE PROVIDED:
1. ENCASEMENT OF THE SEWER PIPE IN CONCRETE (MIN. 6 INCH THICKNESS) OR A CARRIER PIPE FOR AT LEAST 10 FEET EITHER SIDE OF THE AREA NOT COMPLYING WITH THE MINIMUM HORIZONTAL AND VERTICAL SEPERATION, OR
 2. DESIGN AND CONSTRUCTION OF THE SEWER EQUAL TO WATERMAIN PIPE (CEMENT-LINED DUCTILE IRON OR OTHER AWWA-APPROVED MATERIAL FOR POTABLE WATER CONVEYANCE), AND PRESSURE TESTED IN ACCORDANCE WITH AWWA SPECIFICATIONS.
- B. SEWERS CROSSING WATERMANS SEWERS CROSSING OVER WATERMANS SHOULD BE AVOIDED, BUT IF CONDITIONS WARRANT THIS SITUATION, THEN ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO MAINTAIN LINE AND GRADE. SEWERS CROSSING UNDER WATERMANS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL SEPERATION OF 18 INCHES BETWEEN THE INVERT OF THE WATERMAIN AND THE CROWN OF THE SEWER. THE CROSSING SHALL BE ARRANGED SO THAT SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATERMAIN JOINTS.
- WHERE CONDITIONS PREVENT AN 18 INCH VERTICAL SEPERATION FROM BEING MAINTAINED, THE FOLLOWING METHODS SHALL BE SPECIFIED:
1. THE SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATERMAIN PIPE (CEMENT-LINED DUCTILE IRON PIPE, PVC OR OTHER AWWA APPROVED MATERIAL FOR POTABLE WATER CONVEYANCE) FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING, MEASURED PERPENDICULAR TO THE WATER- MAIN AND PRESSURE TESTED IN ACCORDANCE WITH AWWA SPECIFICATIONS, OR
 2. EITHER THE WATERMAIN OR THE SEWER MAY BE ENCASED IN CONCRETE (MIN. 6 INCH THICKNESS) OR A CARRIER PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING, MEASURED PERPENDICULAR TO THE WATER- MAIN. THE CARRIER PIPE SHALL BE DESIGNED AND CONSTRUCTED OF MATERIALS WHICH ARE SATISFACTORY TO THE DIVISION, OR
 3. ANY OTHER METHODS, IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER, WHICH ENSURE ADEQUATE WATER TIGHTNESS AND ARE SATISFACTORY TO THE DIVISION.

MAY - 2 2007

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUL 12 2007 FILE # 07-0193
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Harte

LEONARD R. BRADLEY, JR.
No. 6610
REGISTERED PROFESSIONAL ENGINEER CIVIL

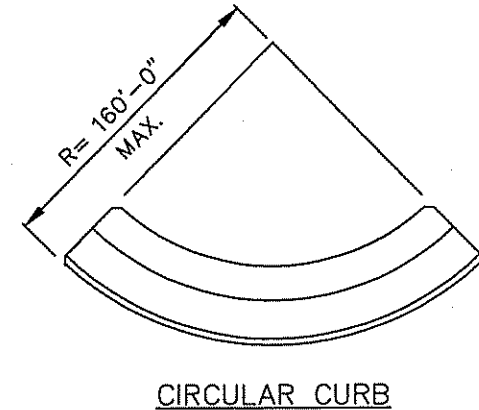
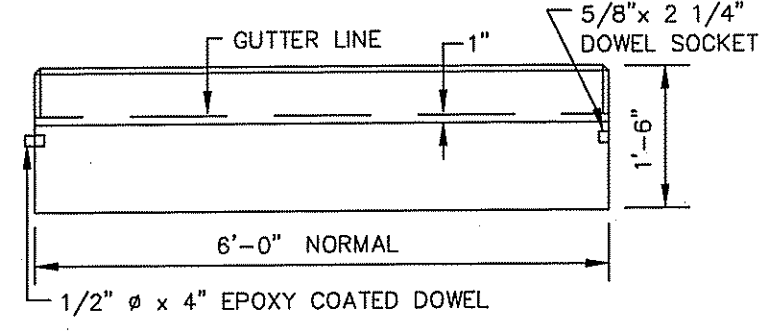
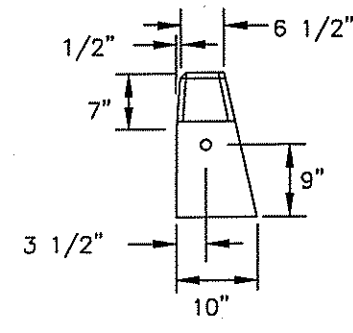
DETAIL SHEET
Shipwreck Falls Lodge
ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31
WEST WARWICK, RHODE ISLAND

PREPARED BY
DiPrete Engineering Associates, Inc.
ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
TWO STAFFORD COURT
CRANSTON, R.I. 02920
(401) 943-1000 FAX: (401) 464-6006

PREPARED FOR
Dial Family Resorts
11506 NICHOLAS STREET, #200
OMAHA, NEBRASKA 68154
PHONE: (402) 493-2800

- NOTES:
- SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
 - MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0".
 - EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
 - CIRCULAR CURB IS REQUIRED ON CURVES WITH RADI OF 160'-0" OR LESS. STRAIGHT CURB TO BE USED ON CURVES OF MORE THAN 160'-0" RADIUS.
 - EXPOSED EDGES TO HAVE A 3/4 CHAMFER.

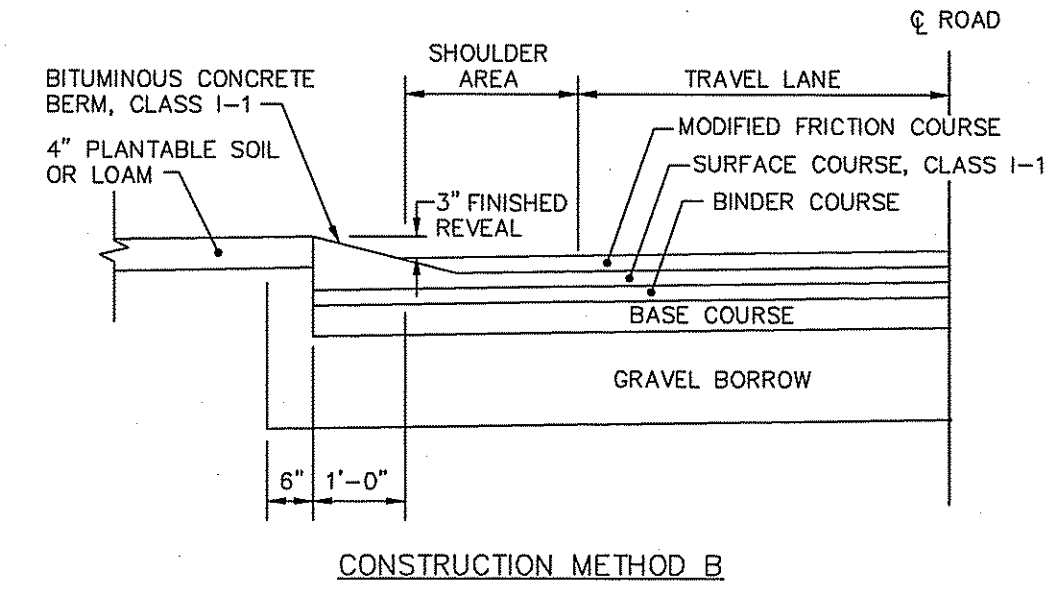
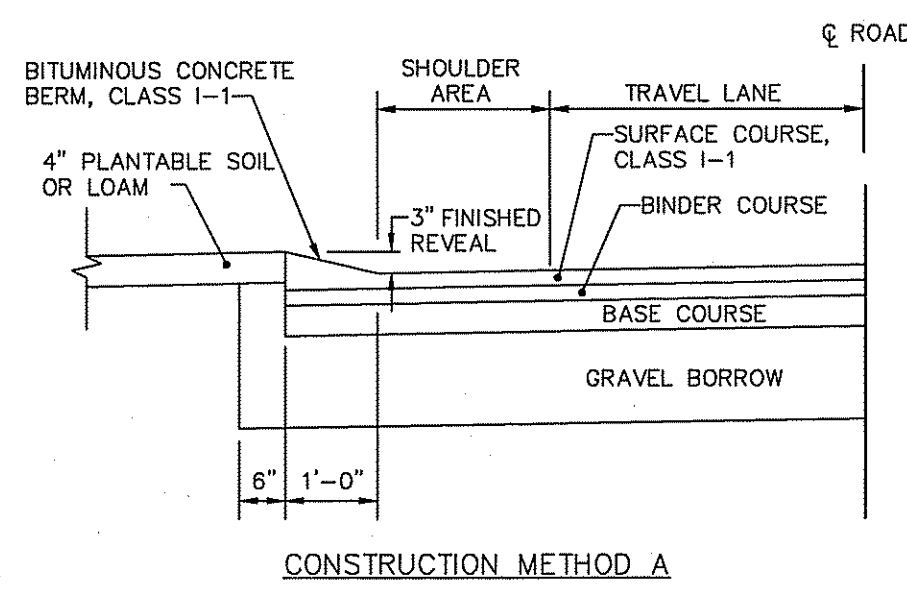
R.I. STANDARD 7.1.0



PRECAST CONCRETE CURB
NOT TO SCALE

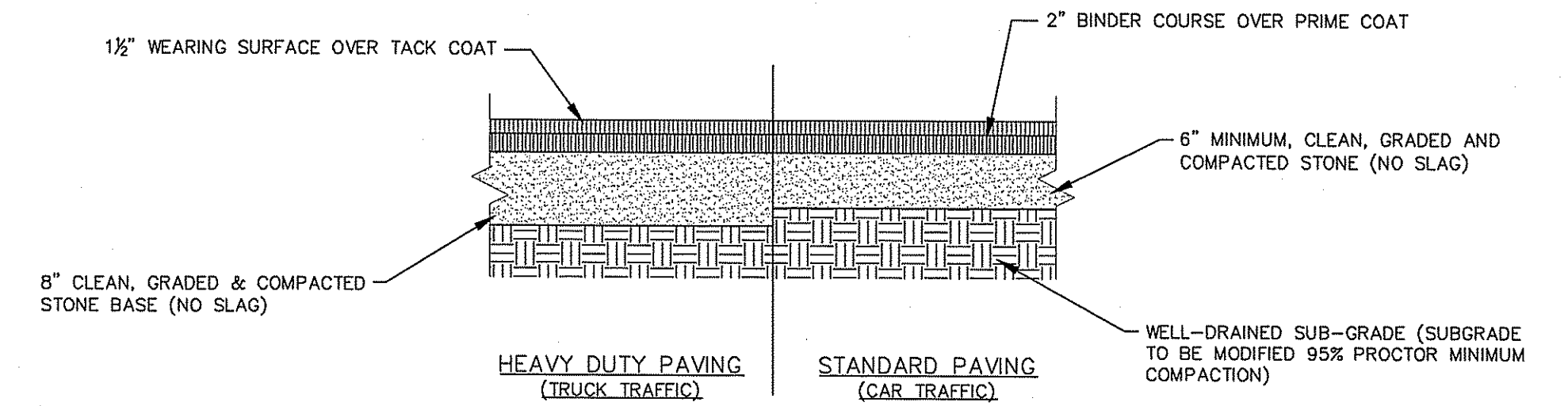
- NOTES:
- SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
 - BITUMINOUS BERM CAN BE PLACED AT THE SAME TIME THAT THE SURFACE COURSE LAYER IS PLACED ON THE PROJECT ROADWAY, OR IT CAN BE INSTALLED IN A SEPARATE OPERATION.

R.I. STANDARD 7.5.1



BITUMINOUS BERM
NOT TO SCALE

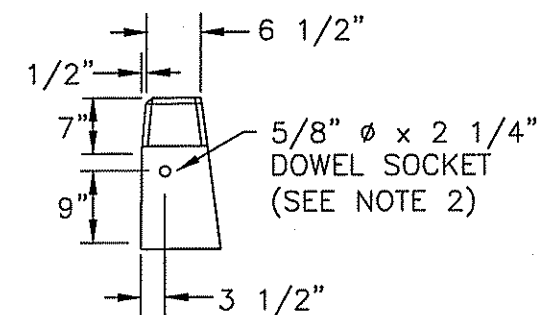
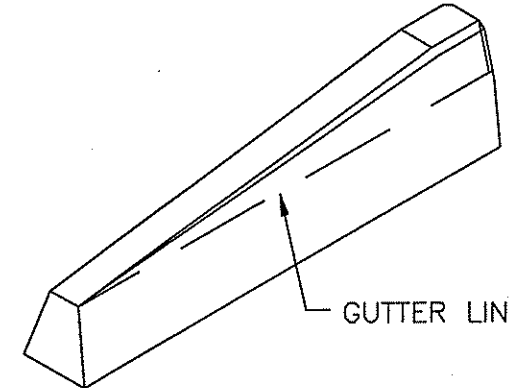
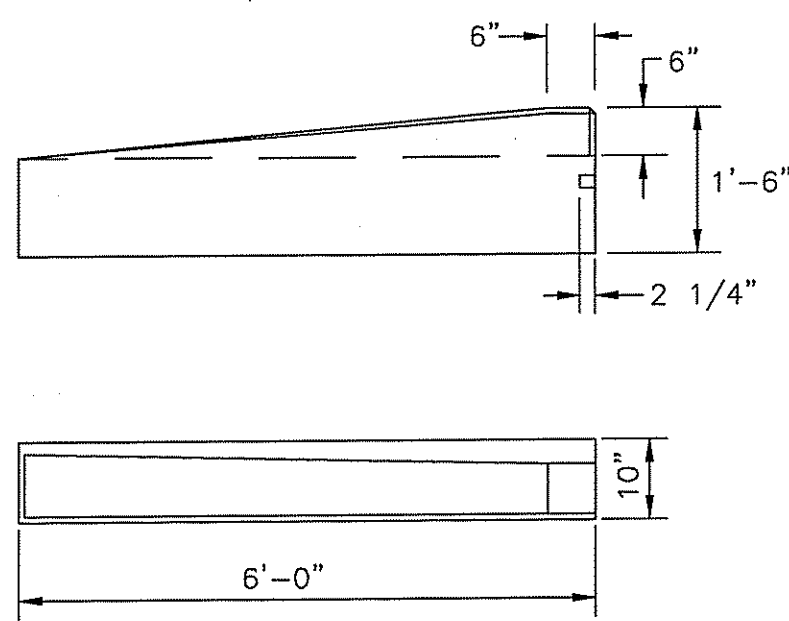
- NOTES:
- THIS PAVEMENT SECTION DETAIL REFLECTS MINIMUM REQUIREMENTS. ENGINEER TO DETERMINE DESIGN BASED ON GEO-TECHNICAL DATA OF SPECIFIC PROJECT AND DAILY TRAFFIC DESIGN REQUIREMENT.



TYPICAL PAVEMENT SECTION
NOT TO SCALE

- NOTES:
- SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
 - DRAWING SHOWS TRANSITION CURB FOR ONE DIRECTION. FOR OTHER DIRECTION USE OPPOSITE HAND AND INCLUDE A 1/2" x 4" EPOXY COATED DOWEL.
 - EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
 - EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

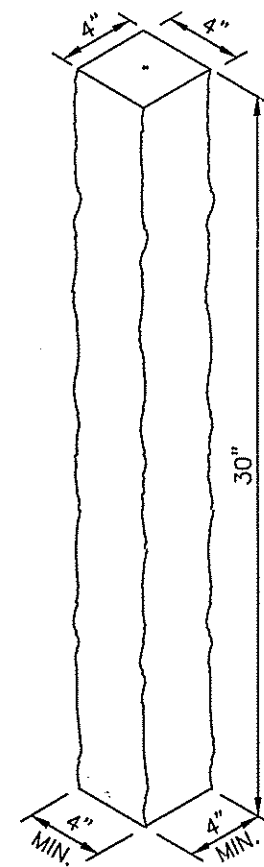
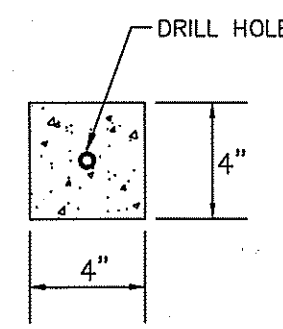
R.I. STANDARD 7.1.2



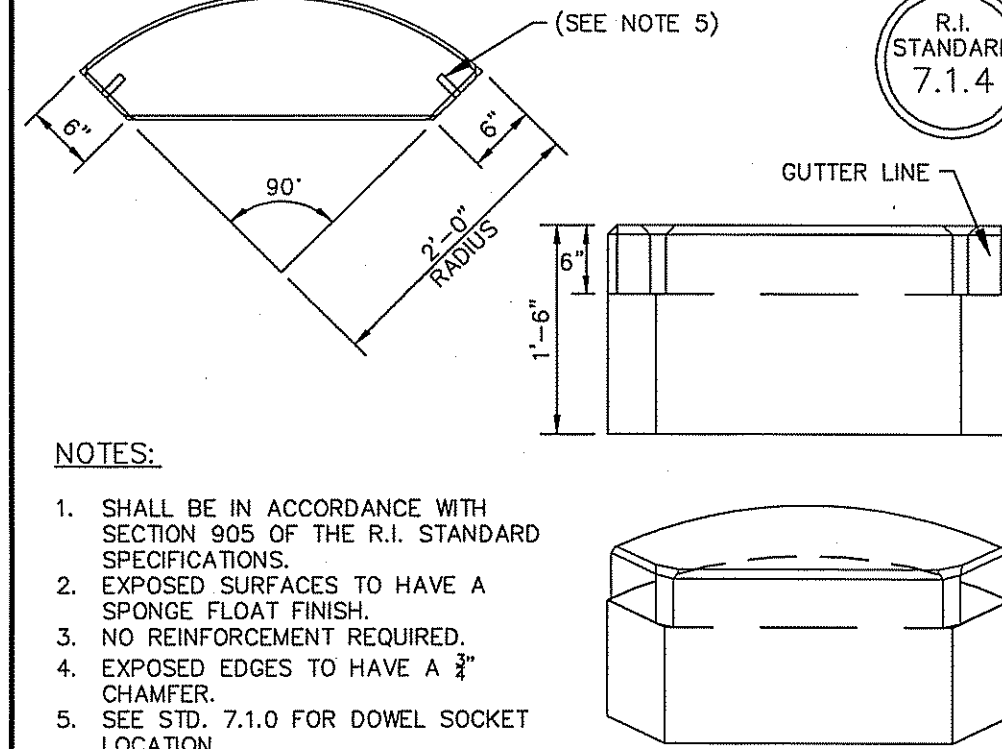
6'-0" PRECAST CONCRETE TRANSITION CURB
NOT TO SCALE

- NOTES:
- BOUNDS TO BE MADE FROM QUARRY CUT GRANITE.
 - BOUNDS ARE TO BE PLACED WHERE INDICATED ON PLANS.
 - ALL BOUNDS ARE TO BE INSTALLED WITH THE TOP SURFACE LEVEL WITH THE GROUND.
 - HOLE TO BE 1/2" DIA., 3/4" DEEP.
 - ALL DIMENSIONS SHOWN ARE MINIMUM.

R.I. STANDARD 7.1.4



GRANITE BOUND
NOT TO SCALE



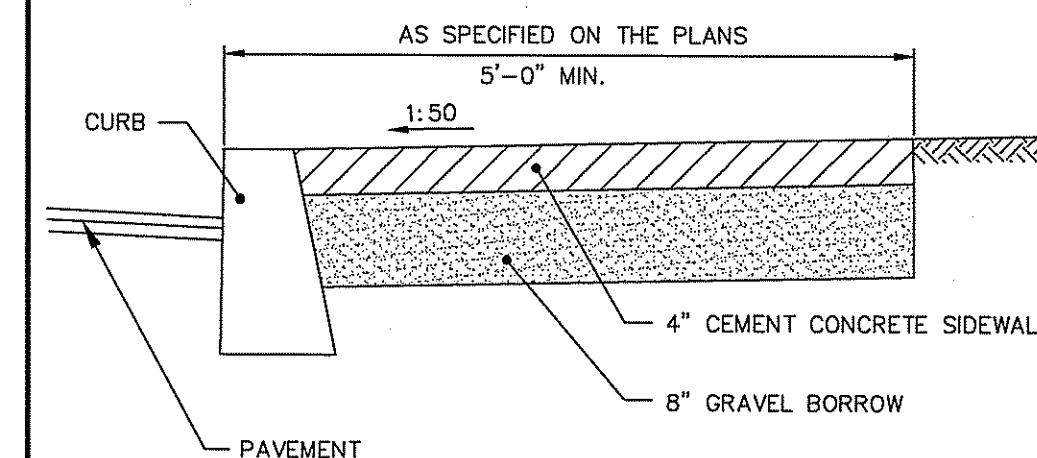
- NOTES:
- SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
 - EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
 - NO REINFORCEMENT REQUIRED.
 - EXPOSED EDGES TO HAVE A 3/4" CHAMFER.
 - SEE STD. 7.1.0 FOR DOWEL SOCKET LOCATION.

PRECAST CONCRETE 2'-0" RADIUS CORNER
NOT TO SCALE

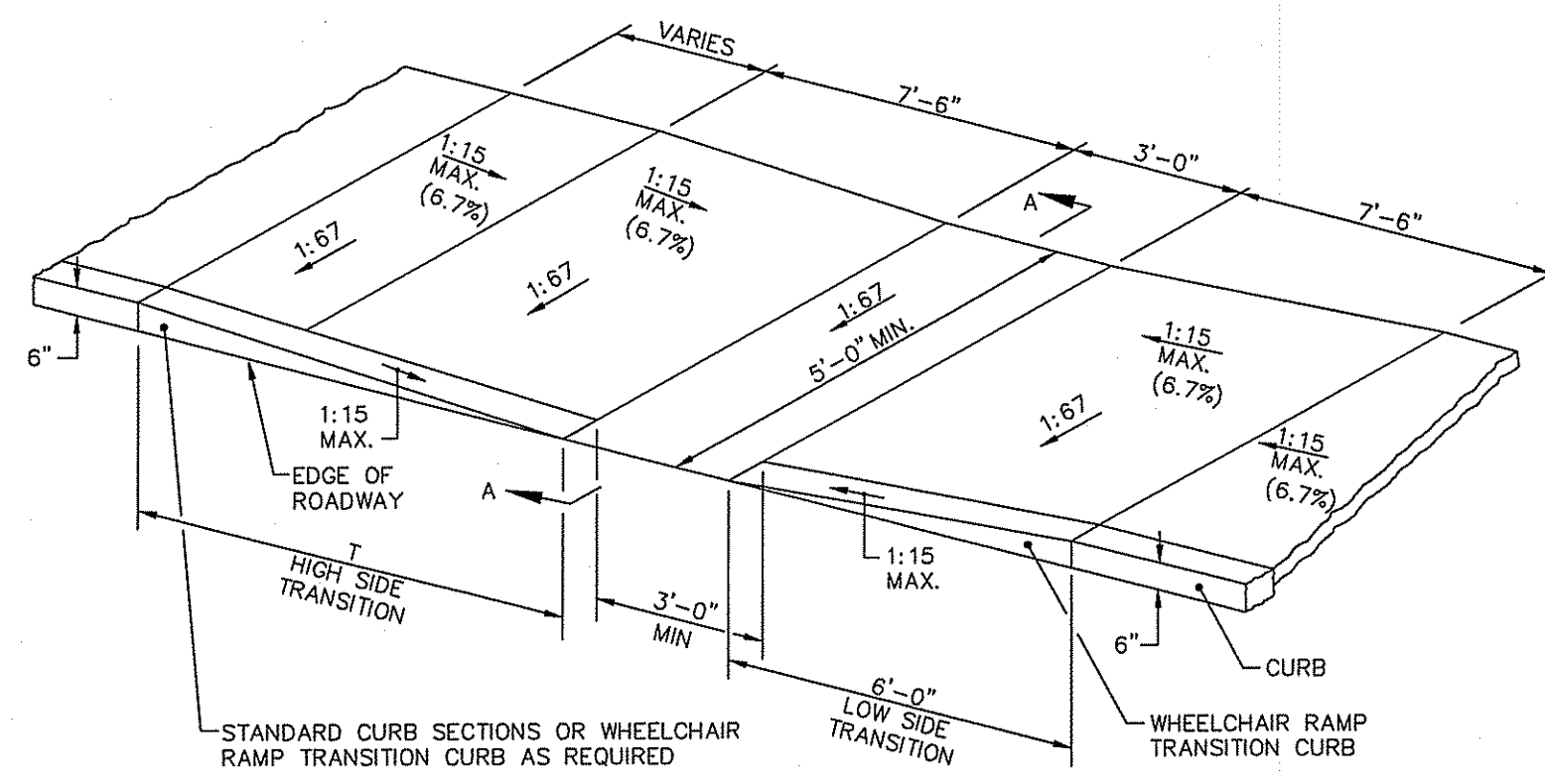
SIGN NUMBER	R6-1 (R OR L)
LEGEND	
COLOR	BACKGROUND BLACK-ARROW WHITE
COPY	BLACK
SIGN WIDTH	36"
HEIGHT	12"
LEGEND	
SIGN NUMBER	R1-1
LEGEND	
COLOR	BACKGROUND RED
COPY	WHITE
SIGN WIDTH	24" 30" 36" 48"
HEIGHT	24" 30" 36" 48"
LEGEND	
SIGN NUMBER	R5-1
LEGEND	
COLOR	BACKGROUND RED
COPY	WHITE
SIGN WIDTH	30" 36" 48"
HEIGHT	30" 36" 48"

STANDARD 27.1.0

- NOTES:
- SHALL BE IN ACCORDANCE WITH SECTION 904 OF THE R.I. STANDARD SPECIFICATIONS.
 - FOR CURB SETTING DETAIL REFERENCE STD. 7.6.0.



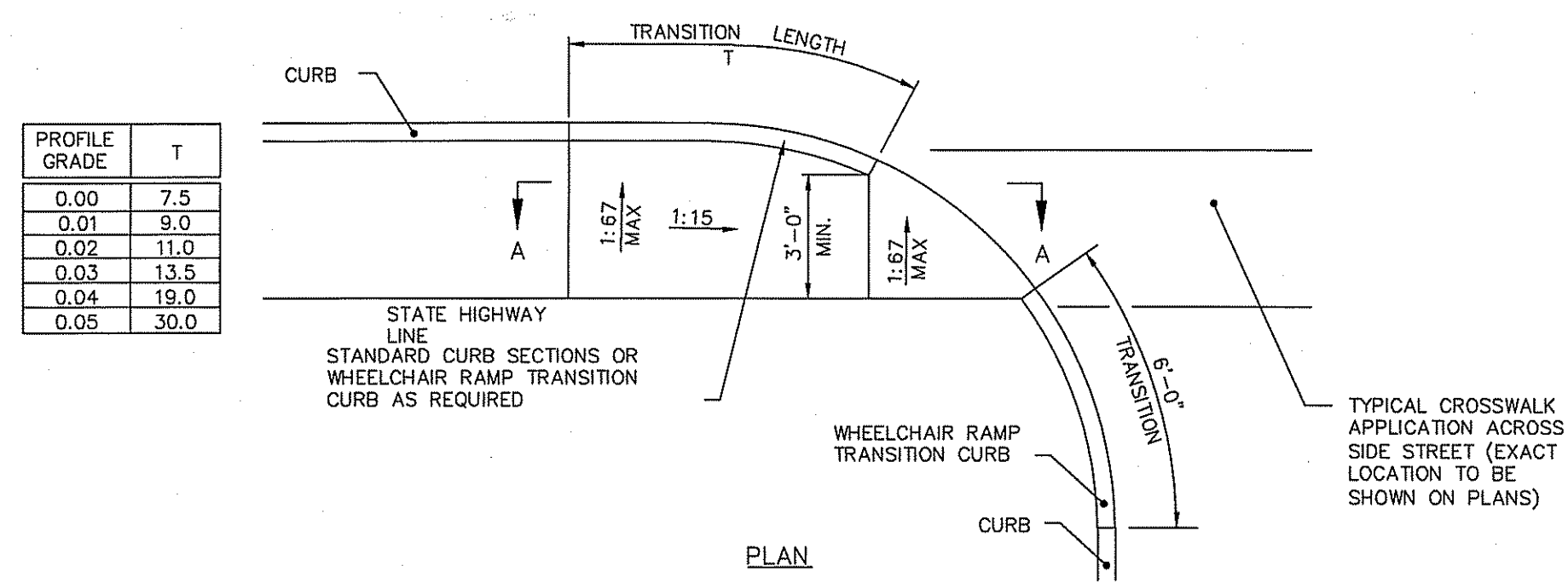
CEMENT CONCRETE SIDEWALK
NOT TO SCALE



ROADWAY PROFILE GRADE	T (FT.)
0.00	6.0
0.01	7.0
0.02	8.0
0.03	9.5
0.04	11.5
0.05	15.0

- NOTES:
- SHALL BE IN ACCORDANCE WITH SECTION 904 OF THE R.I. STANDARD SPECIFICATIONS.
 - WHEN ANY OBSTRUCTION LOCATED IN THE SIDEWALK FALLS WITHIN A CROSSWALK AREA, THE WHEELCHAIR RAMP WILL BE PLACED SUCH THAT THE OBSTRUCTION FALLS OUTSIDE OF THE RAMP.
 - AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP TO BE LOCATED OUTSIDE OF THE CROSSWALK, AND IT IS TO BE CENTERED WHENEVER POSSIBLE.
 - DRAINAGE FACILITIES ARE TO BE LOCATED UP-GRADE OF ALL WHEELCHAIR RAMPS.
 - LOCATION OF WHEELCHAIR RAMPS IS AS SHOWN ON CONTRACT DRAWINGS.
 - IN NO INSTANCE SHALL THE SIDEWALK CROSS SLOPE EXCEED 1:50 EXCEPT WITHIN THE RAMP AREA.
 - AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 3'-0" SHALL BE MAINTAINED.
 - THE WHEELCHAIR RAMP SLOPE AND SIDE SLOPES (TRANSITIONS), MUST NOT EXCEED 1:12. HOWEVER, THESE SLOPES MAY BE FLATTER THAN 1:12 WHEN WARRANTED BY SURROUNDING CONDITIONS.
 - WHERE THE ROAD PROFILE EXCEEDS 5% THE HIGH SIDE TRANSITION LENGTH (T) SHALL BE EIGHTEEN FEET (18'-0").
 - IN NO CASE, WHERE A STOP LINE IS WARRANTED, SHALL A RAMP BE PLACED BEHIND THE STOP LINE.
 - THE ENTRANCE OF THE WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
 - THE WHEELCHAIR RAMP SHALL BE CENTERED RADIALLY, OPPOSITE THE RADIUS POINT WHEN POSSIBLE.
 - MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0" (GREATER LENGTHS PREFERRED).
 - ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
 - MEETS OR EXCEEDS GUIDELINES OF RIDOT STANDARD DETAIL 43.3.0.

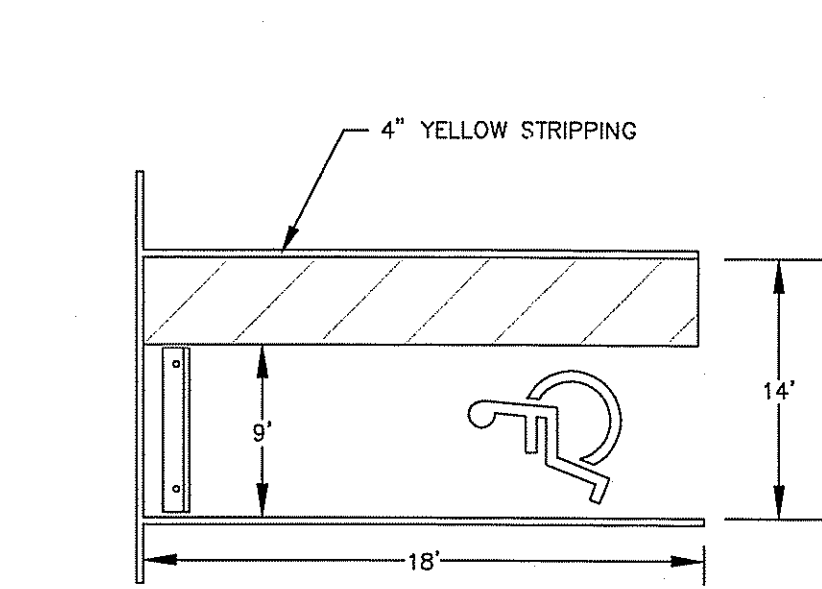
WHEELCHAIR RAMP (ADA)
NOT TO SCALE



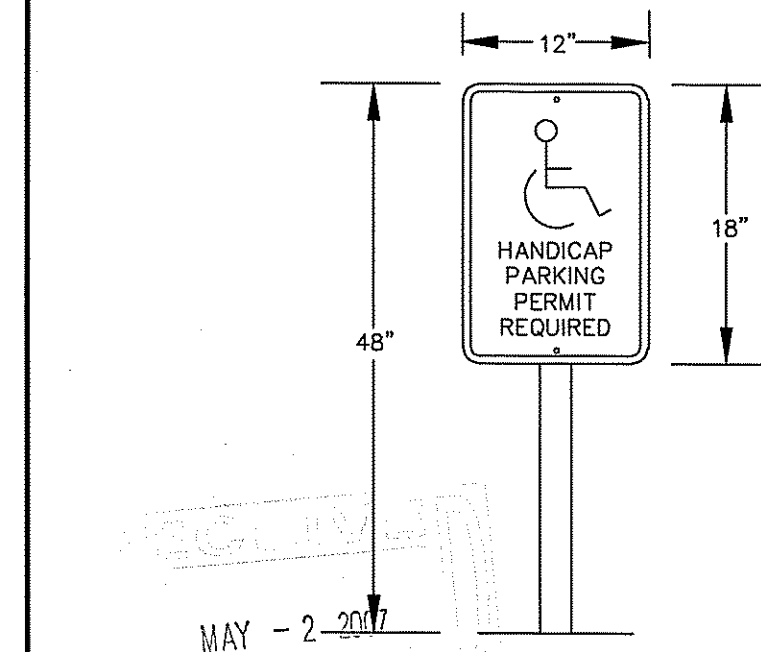
PROFILE GRADE	T
0.00	7.5
0.01	9.0
0.02	11.0
0.03	13.5
0.04	19.0
0.05	30.0

- NOTES:
- SHALL BE IN ACCORDANCE WITH SECTION 904 OF THE R.I. STANDARD SPECIFICATIONS.
 - THIS DETAIL IS TO BE USED ONLY WHEN STATE RIGHT-OF-WAY IS LIMITED TO BACK OF SIDEWALK, AND SIDEWALK IS NARROW WITH NO PEDESTRIAN TRAFFIC FROM SIDE STREET.
 - WHEN ANY OBSTRUCTION LOCATED IN THE SIDEWALK FALLS WITHIN A CROSSWALK AREA, IF POSSIBLE, THE OBSTRUCTION WILL BE PLACED SUCH THAT IT FALLS OUTSIDE OF THE RAMP.
 - AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP TO BE LOCATED OUTSIDE OF THE CROSSWALK, AND IT IS TO BE CENTERED WHENEVER POSSIBLE.
 - DRAINAGE FACILITIES ARE TO BE LOCATED UP-GRADE OF ALL WHEELCHAIR RAMPS.
 - LOCATION OF WHEELCHAIR RAMPS IS AS SHOWN ON CONTRACT DRAWINGS.
 - ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
 - WHERE THE ROAD PROFILE EXCEEDS 5% THE TRANSITION LENGTH (T) SHALL BE EIGHTEEN FEET (18'-0").
 - THE ENTRANCE OF THE WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
 - MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0" (GREATER LENGTHS PREFERRED).
 - AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 3'-0" SHALL BE MAINTAINED.
 - MEETS OR EXCEEDS GUIDELINES OF RIDOT STANDARD DETAIL 43.3.1.

WHEELCHAIR RAMP FOR LIMITED RIGHT-OF-WAY AREAS (ADA)
NOT TO SCALE



TYPICAL HANDICAP PARKING SPACE
NOT TO SCALE

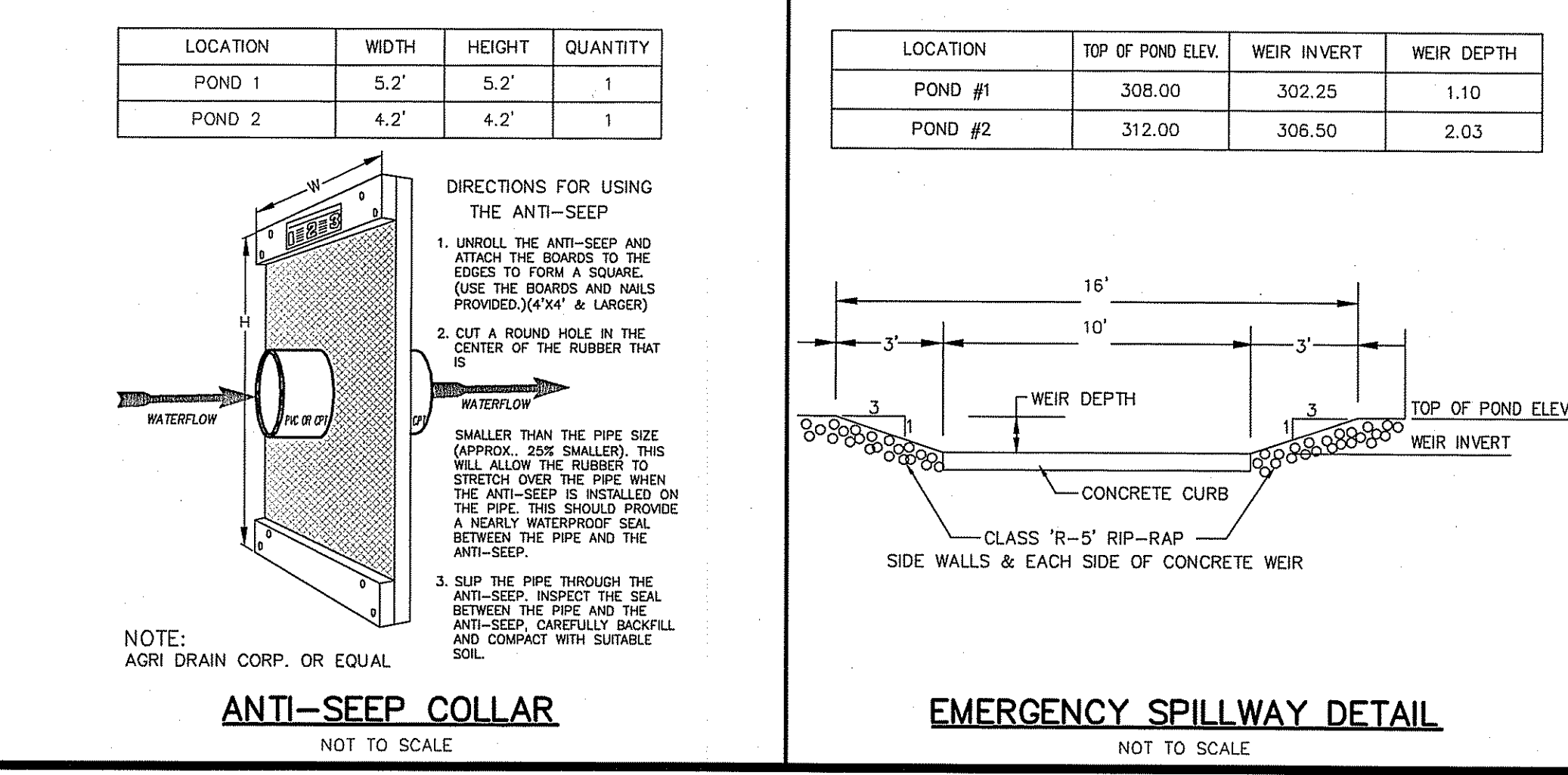
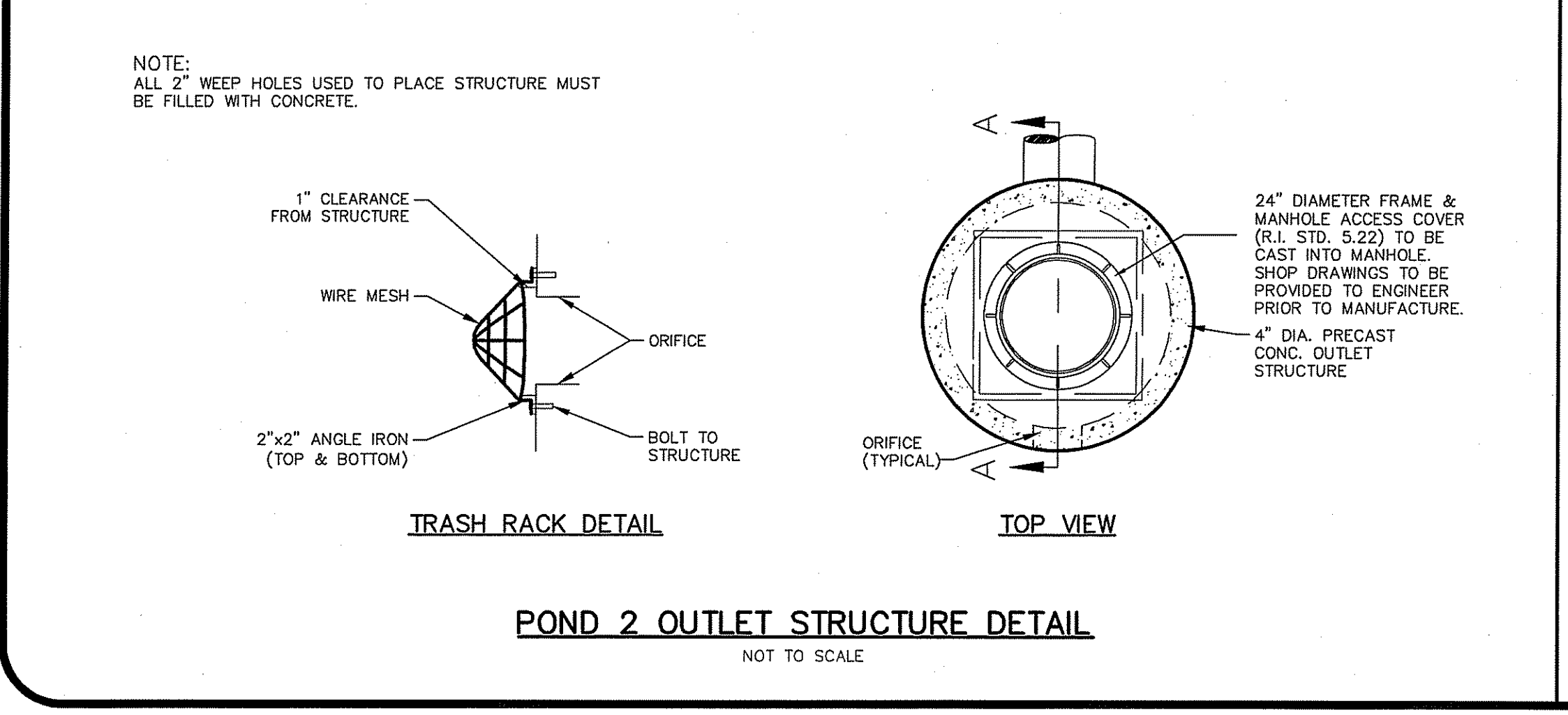
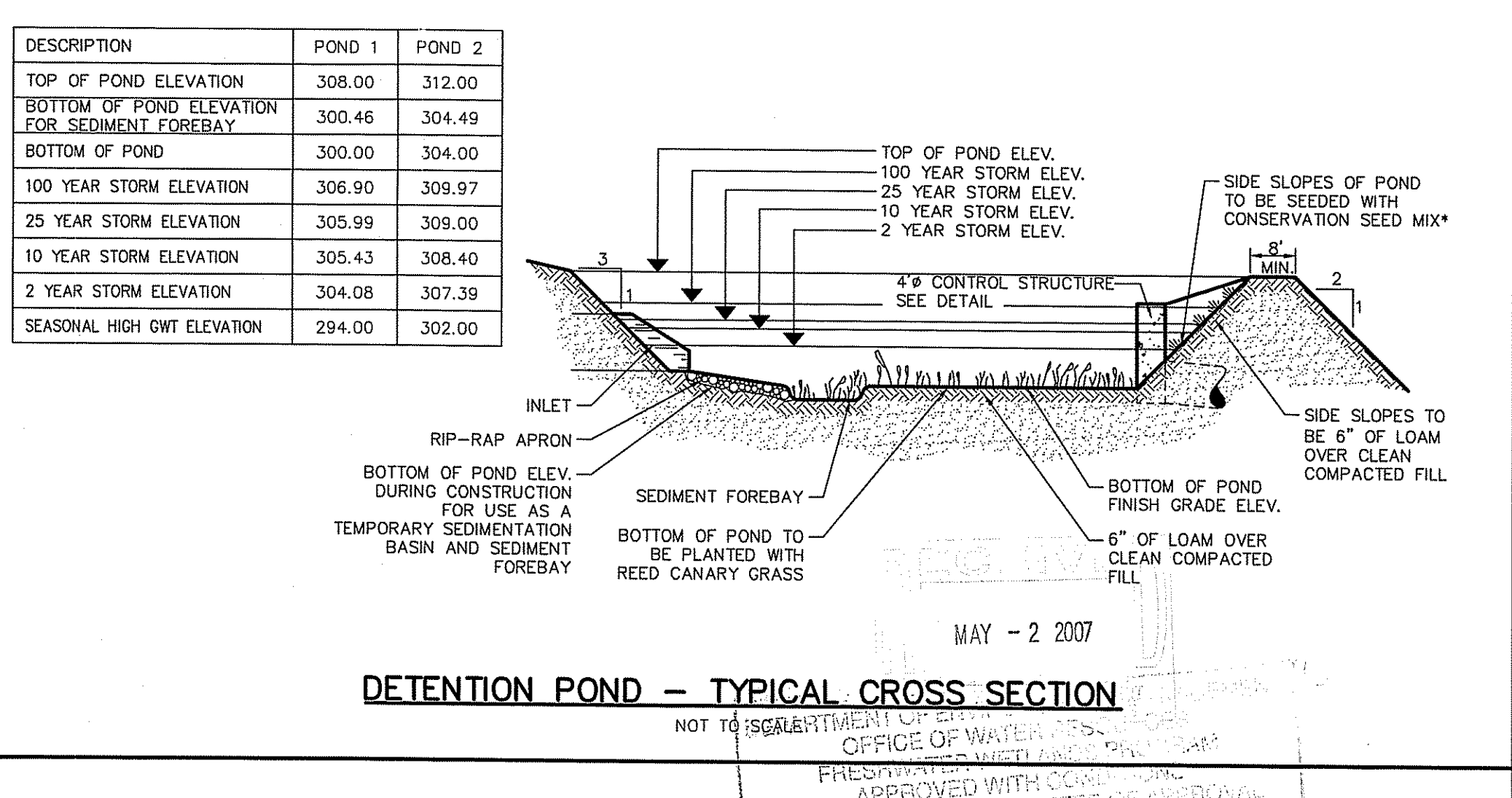
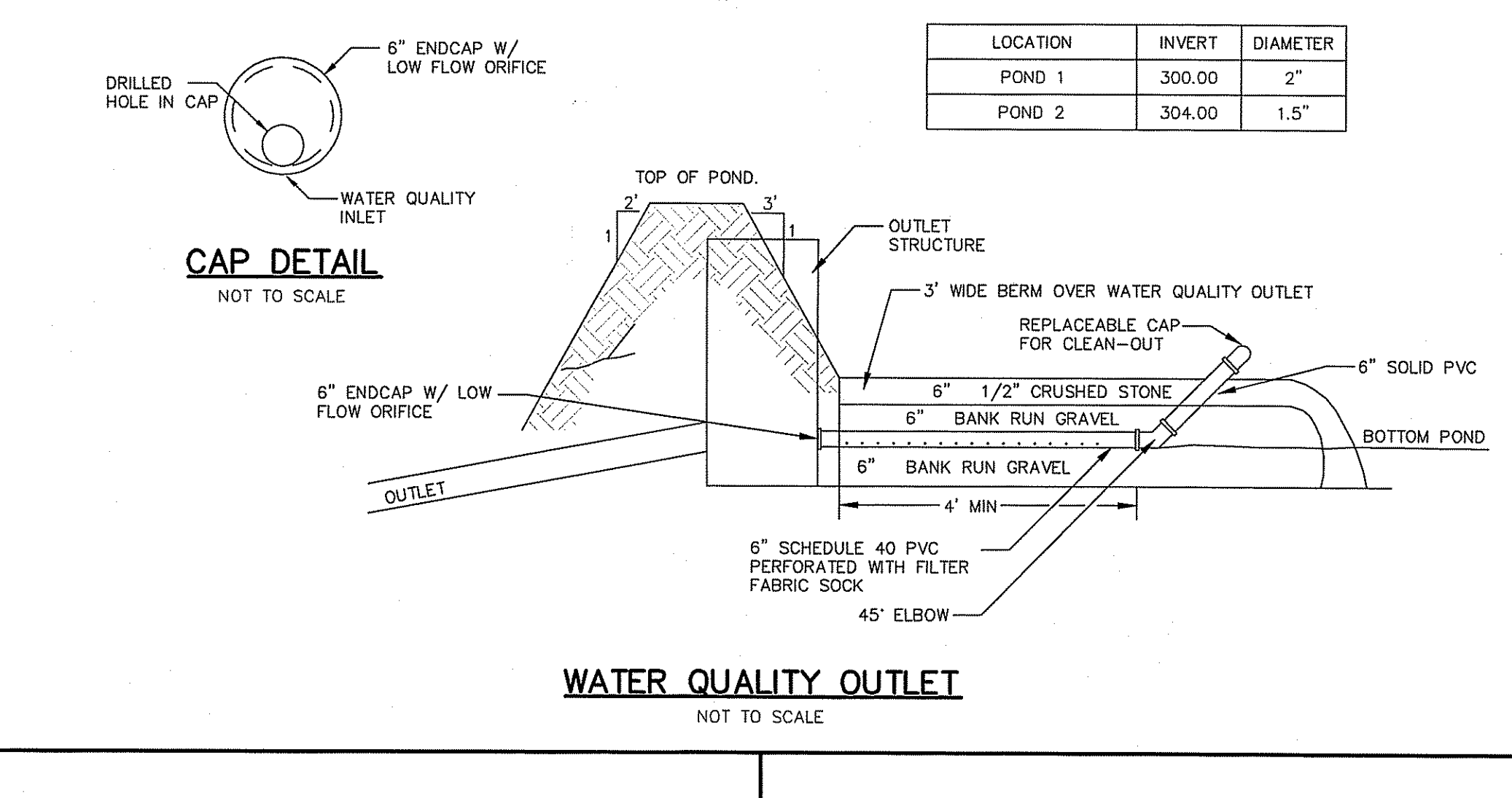
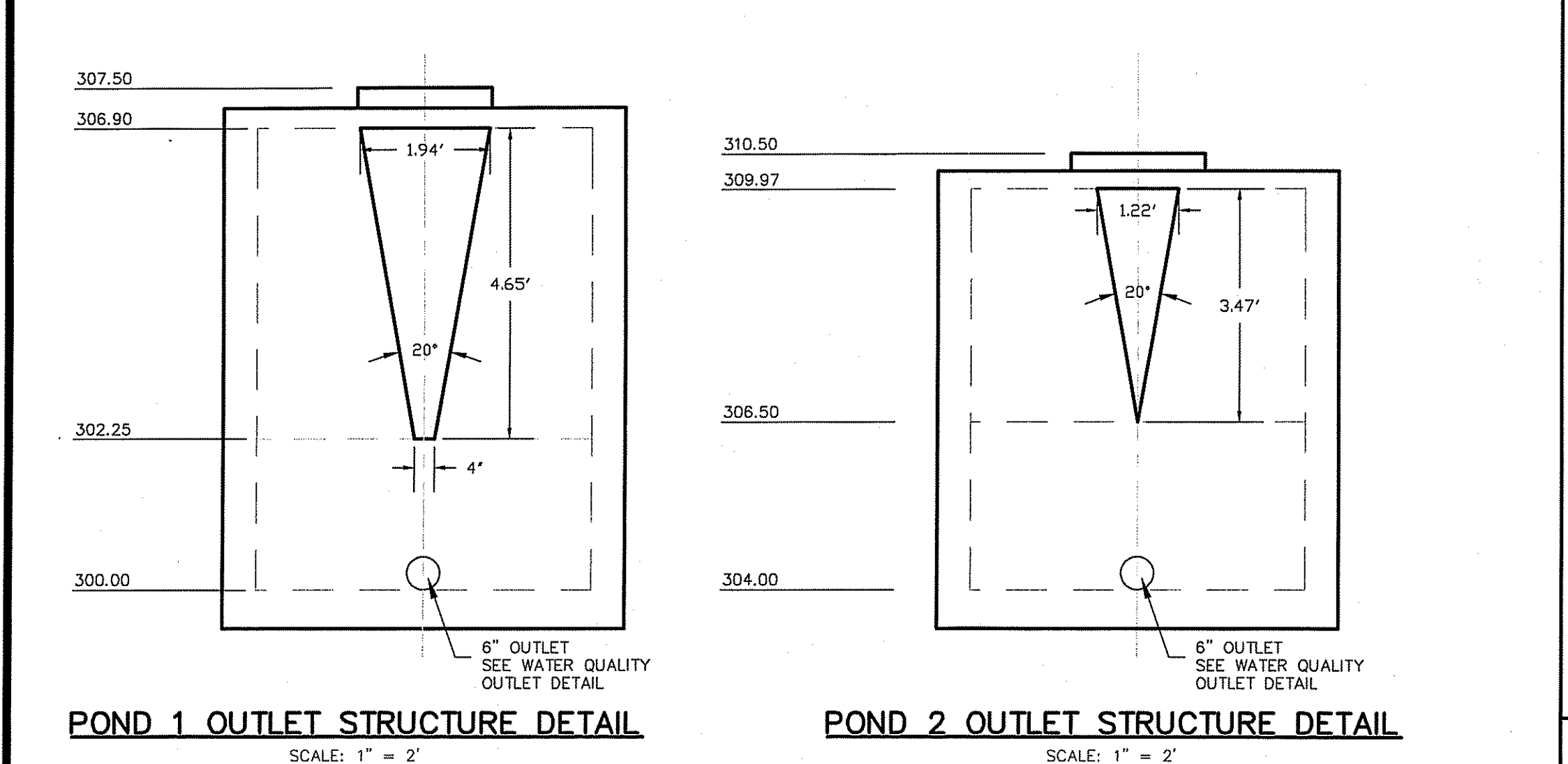
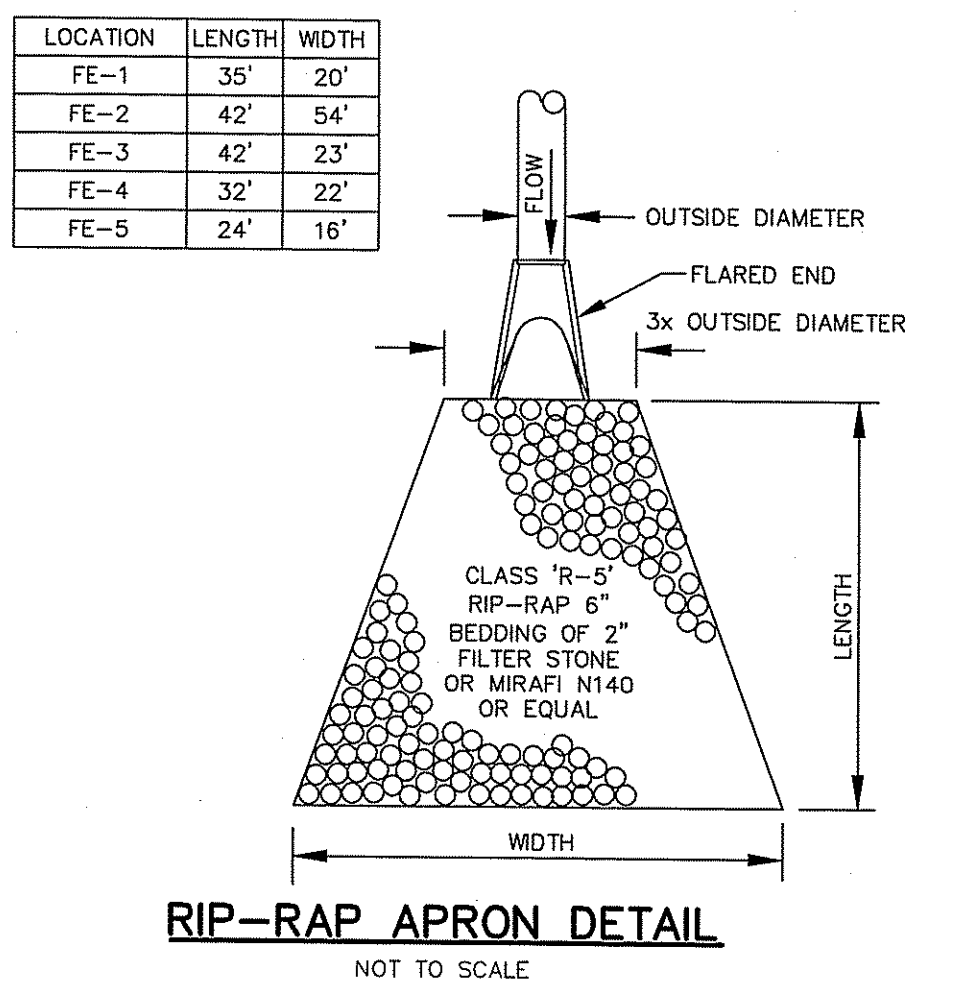
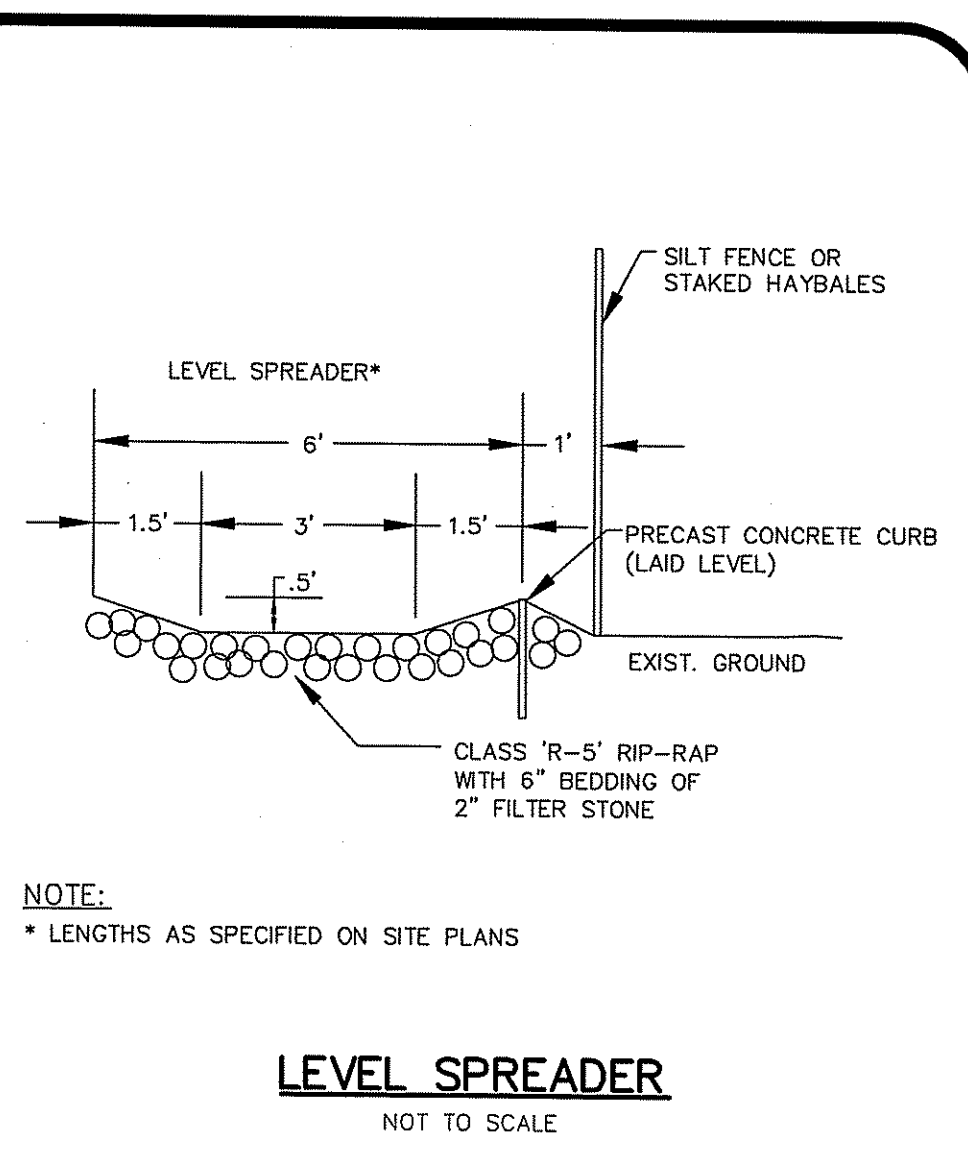
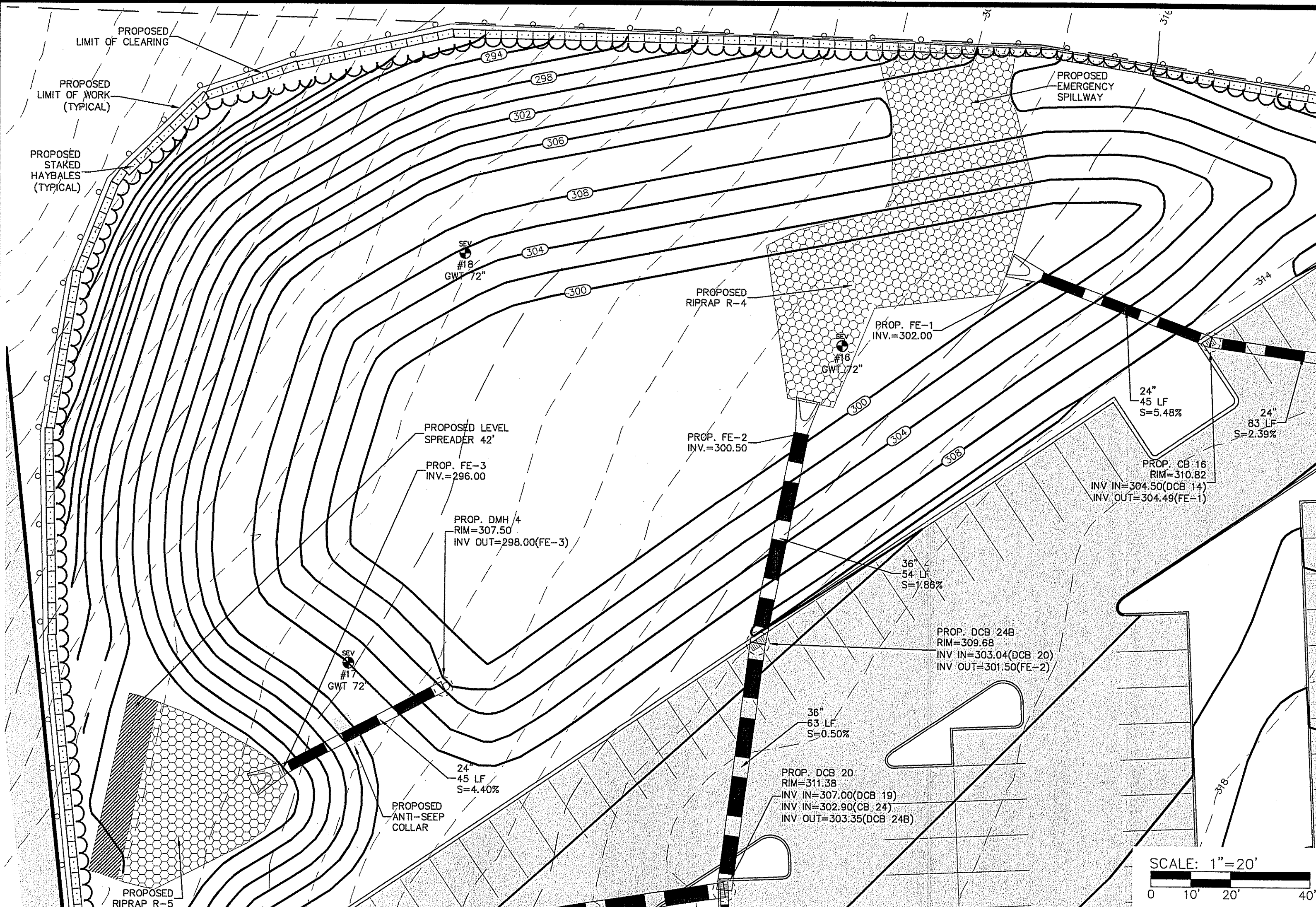
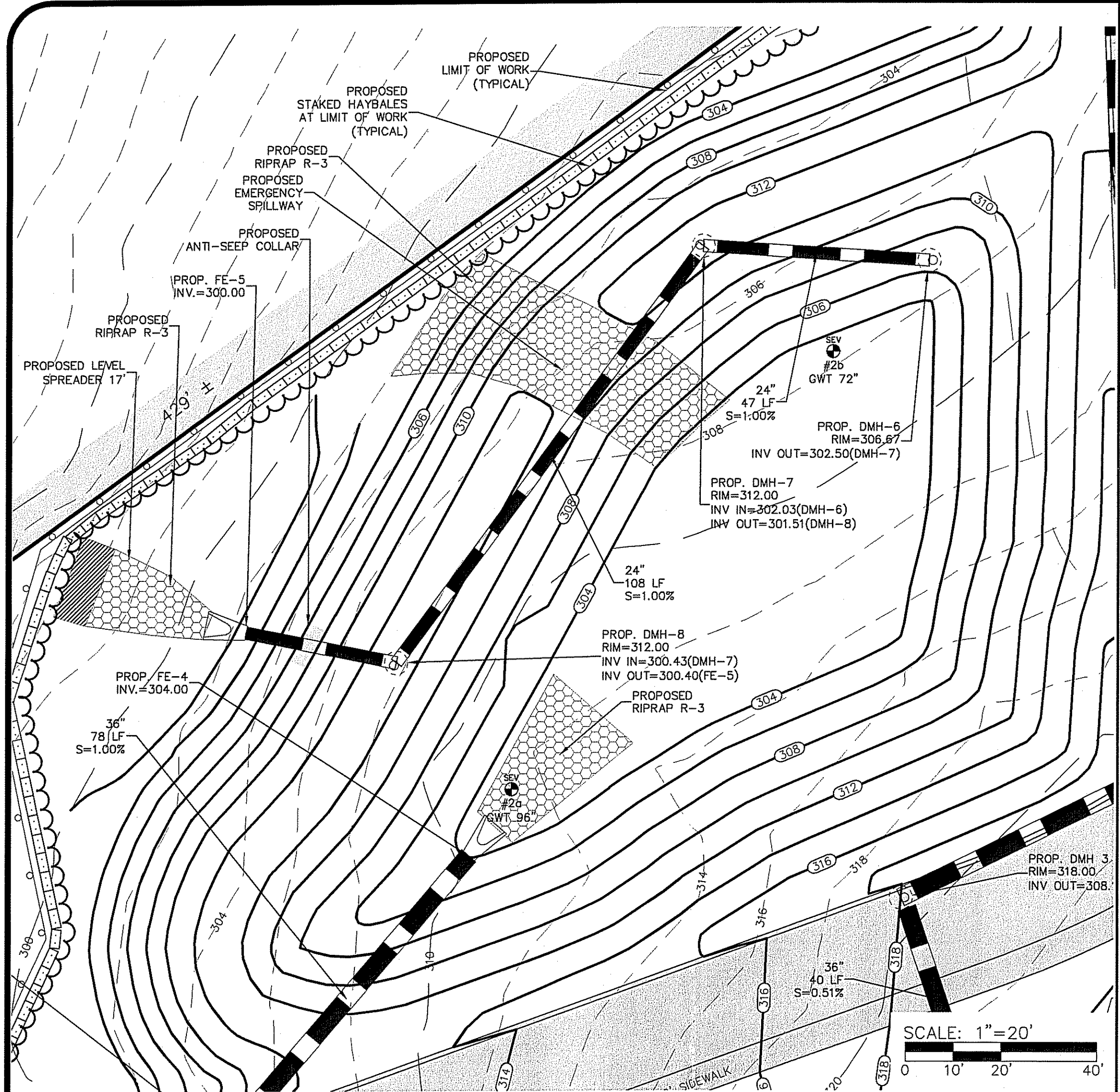


TYPICAL HANDICAP PARKING POST & SIGN

DEPARTMENT OF ENVIRONMENTAL & PLANNING CONSULTANTS
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PERMITS
APPROVED FOR CONSTRUCTION
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUL 12 2007 FILE # 07-0193
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles A. Harte

LEONARD R. BRADLEY, JR.
No. 6610
REGISTERED PROFESSIONAL ENGINEER CIVIL

DETAIL SHEET
Shipwreck Falls Lodge
ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31
WEST WARWICK, RHODE ISLAND
PREPARED BY
DIPrete Engineering Associates, Inc.
ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
TWO STAFFORD COURT
CRANSTON, R.I. 02920
(401) 943-1000 FAX: (401) 464-6006
PREPARED FOR
Dial Family Resorts
11506 NICHOLAS STREET, #200
OMAHA, NEBRASKA 68154
PHONE: (402) 493-2800



APPROVED FOR CONSTRUCTION

AS SPECIFIED IN THE LETTER OF APPROVAL DATED JUL 12 2007 FILE # 07-0193

NO CHANGES ALLOWED WITHOUT PREVIOUS APPROVAL APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Hackett

LEONARD R. BRADLEY, R.
No. 6610
REGISTERED PROFESSIONAL ENGINEER CIVIL

DETAIL SHEET
Shipwreck Falls Lodge
ASSESSOR'S PLAT 12 LOT 2 & PORTION OF LOT 31
WEST WARWICK, RHODE ISLAND

PREPARED BY
DiPrete Engineering Associates, Inc.
ENGINEERING, SURVEYING AND PLANNING CONSULTANTS
TWO STAFFORD COURT
CRANSTON, R.I. 02920
(401) 943-1000 FAX: (401) 464-6006

PREPARED FOR
Dial Family Resorts
11506 NICHOLAS STREET, #200
OMAHA, NEBRASKA 68154
PHONE: (402) 493-2800

MAY, 2007
DWN. BY: S.A.B.

SHEET 16 OF 16