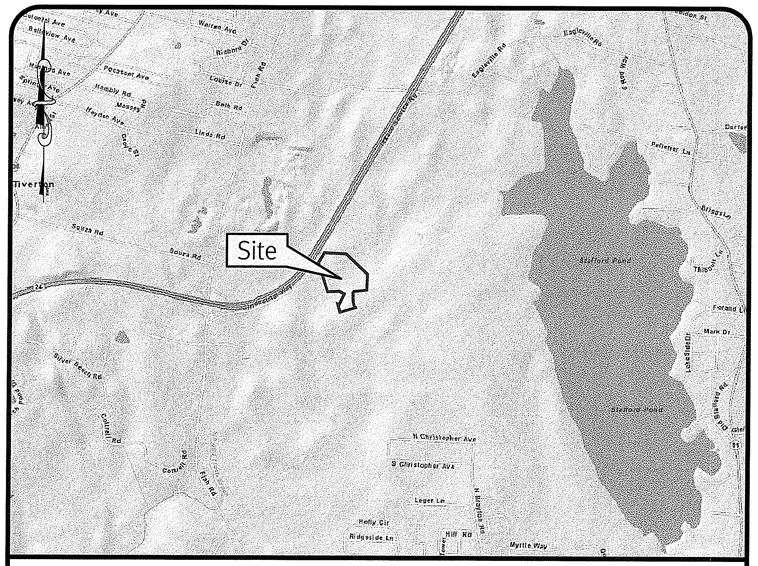
16-0116

Design Development Plans

Longplex Sports & Family Complex

Tiverton, Rhode Island



Location Map 1"=1,500'

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1. Cover
2. Aerial
3. Notes
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5. Utility Plan - Overall
6. Utility Plan
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17. Minor Subdivision Plan

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 24 2017 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Martin D. Venezia

FEB 21 2017

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

KEVIN DEMERS
8567
REGISTERED PROFESSIONAL ENGINEER
CIVIL

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The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By
18	2-8-2017	Response to DEM Comments	KJD
17	1-19-2017	Response to DEM Comments	KJD
16	11-29-2016	Response to DEM Comments	KJD
15	11-14-2016	Response to NGRID Comments	KJD
14	10-10-2016	Minor Subdivision	KJD
13	9-15-2016	Response to NGRID Comments	KJD
12	8-9-2016	Response to NGRID Comments	KJD
11	8-2-2016	Response to DEM Comments	AJK
10	7-28-2016	Response to Town Comments	AJK
9	7-19-2016	Response to Comments	ACA
8	7-5-2016	RIDEM Response to Comments	KJD

Drawn By: ACA | Design By: MT

Cover

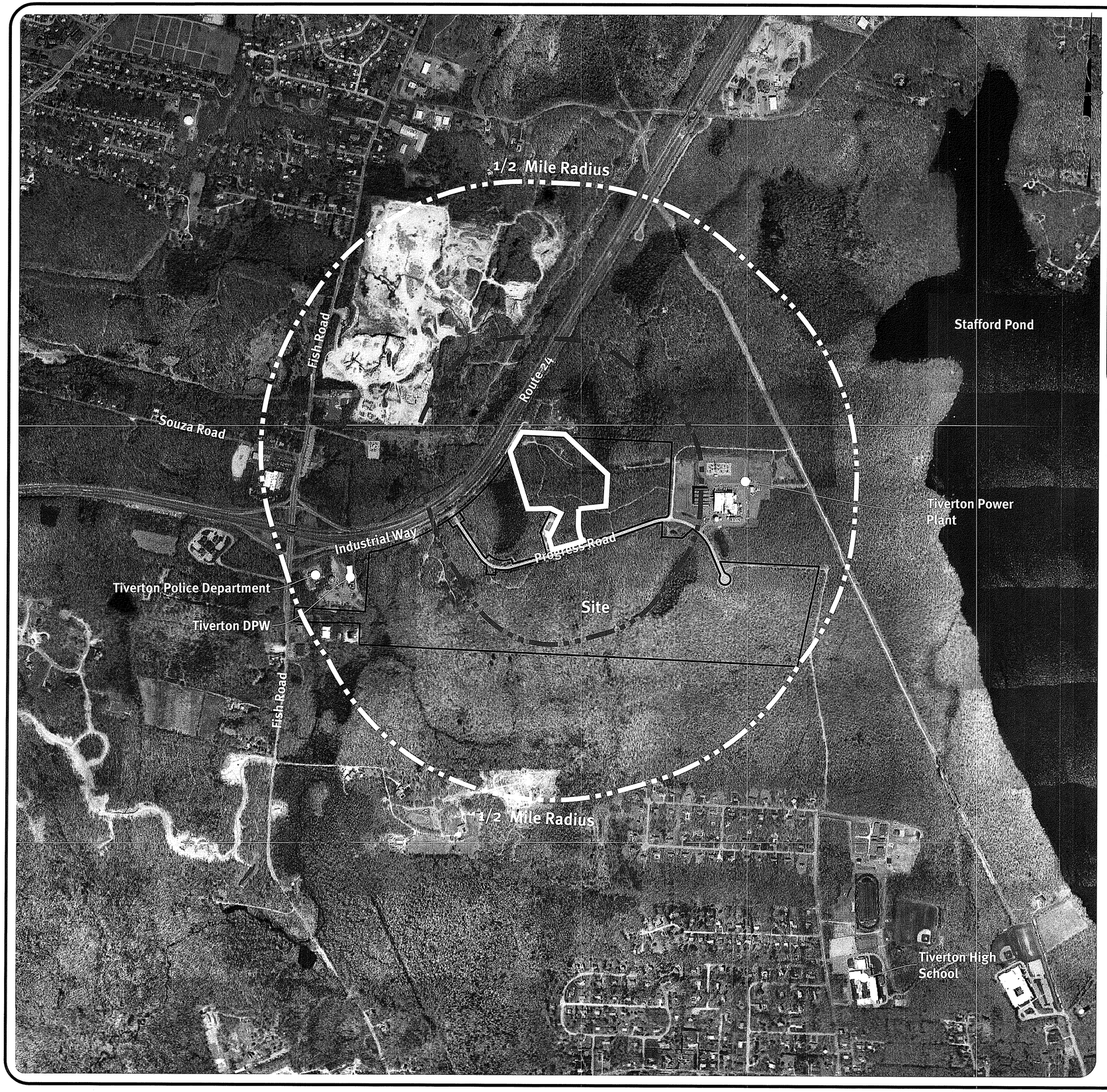
Longplex Sports & Family Complex

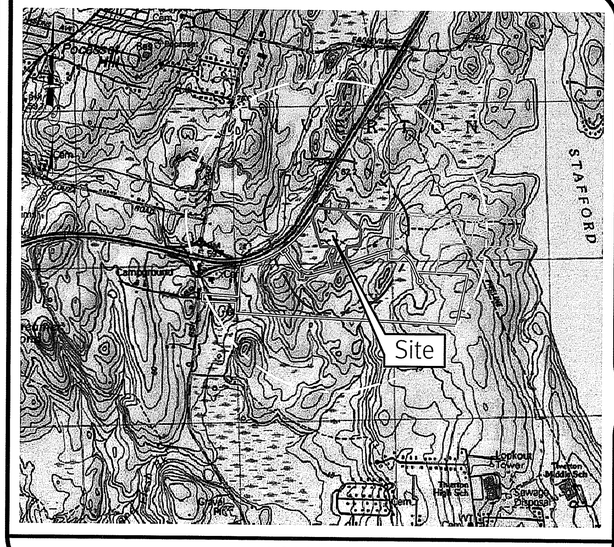
Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
In Tiverton, Rhode Island 02878

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

SHEET 1 OF 17

z:\dimain\project\1895-001 tiverton industrial park\autocad drawings\1895-001-cver.dwg Plotted: 2/21/2017





USGS Map Scale: 1"=1500'

Photo obtained from the RI-GIS 2008 Aerials

Scale: 1"=500'

0 250' 500' 1000'

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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No.	Date	Description	By
10	2-15-2017	Response to DEM Comments	K.D.
9	12-20-2016	Response to CRMC Comments	K.D.
8	11-17-2016	Response to NOAA Comments	K.D.
7	10-14-2016	Response to NGRID Comments	K.D.
6	9-30-2016	Response to NGRID Comments	K.D.
5	9-19-2016	Response to NOAA Comments	K.D.
4	8-25-2016	Response to DEM Comments	K.D.
3	8-22-2016	Response to DEM Comments	K.D.
2	7-28-2016	Response to Town Comments	K.D.
1	7-15-2016	Response to Town Comments	K.D.
A	7-7-2016	RIDEM PO Response to Comments	K.D.

Drawn By: ACA Design By: MT

Aerial
Longplex Sports & Family Complex
Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878
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SHEET 2 OF 17

DE Job No: 0XXX.XXX Copyright 2017 by DiPrete Engineering Associates, Inc.

z:\domain\projects\1895-001 tiverton industrial park\autocad drawings\1895-001-cvar.dwg Plotted: 2/14/2017

Grading and Utility Notes:

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENT CONTROL ONSITE. THE CONTRACTOR IS TO NOTIFY THE DESIGN ENGINEER, THE DIRECTOR OF PUBLIC WORKS, THE TOWN ENGINEER, AND RI DEPT. OF ENVIRONMENTAL MANAGEMENT AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
2. CONTRACTOR TO OBTAIN ALL FEDERAL, STATE, AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.
3. CONSTRUCTION TO COMMENCE SUMMER 2016 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.
4. ALL WORK PERFORMED HEREIN SHALL BE GOVERNED BY THE RHODE ISLAND STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AND TOWN OF TIVERTON STANDARD SPECIFICATIONS AND DETAILS.
5. SEQUENCE OF CONSTRUCTION PROVIDED/SHOWN IN SESC MAY BE MODIFIED AS FIELD CONDITIONS WARRANT WITH PRIOR APPROVAL FROM THE OWNER OR OWNER'S REPRESENTATIVE.
6. 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 DIPRETE ENGINEERING THAT UTILITY SERVICE IS AVAILABLE.
7. 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.
8. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.
9. ALL PROPOSED UNDERGROUND UTILITIES SERVING THE SITE AND BUILDINGS TO BE COORDINATED WITH APPLICANT, ARCHITECT, AND ENGINEER PRIOR TO INSTALLATION.
10. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION INCLUDING ALL REVISIONS.
11. ALL RETAINING WALLS AND STEEP SLOPES ARE SHOWN SCHEMATICALLY ONLY AND DIPRETE ENGINEERING IS NOT PROVIDING THE DESIGN OF THESE ITEMS. THE ACTUAL WALLS AND SLOPES ARE TO BE BUILT UNDER THE DIRECTION OF A GEOTECHNICAL ENGINEER AND CERTIFIED TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT. SHOP DRAWINGS TO BE SUBMITTED PRIOR TO CONSTRUCTION.
12. 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 APPLICANT AT THE COMPLETION OF THE PROJECT. DIPRETE ENGINEERING ASSOCIATES, INC. IS NOT PROVIDING THE FILL SPECIFICATION, GEOTECHNICAL ENGINEERING, STRUCTURAL ENGINEERING SERVICES, OR SUPERVISION AS PART OF THESE DRAWINGS.
13. ALL COMPONENTS OF THE DRAINAGE, SEWER 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.
14. NO STOCKPILING OF MATERIAL TO BE LOCATED IN THE RIGHT OF WAY AND NO OPEN TRENCHES ARE TO BE LEFT OVERNIGHT.
15. ALL LOAM IN DISTURBED AREAS TO BE STOCKPILED FOR FUTURE USE.
16. ALL EXCESS SOIL, TREES, ROCKS, BOULDERS, AND OTHER REFUSE, SHALL BE DISCARDED OFF SITE IN AN ACCEPTABLE MANNER AT AN APPROVED LOCATION. STUMPS SHALL BE GROUND ONSITE OR REMOVED.
17. NO STUMP DUMPS ARE PROPOSED ONSITE.
18. ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS FROM OTHERS, OR INFORMATION PROVIDED TO DIPRETE ENGINEERING AND ARE SUBJECT TO CHANGE. THE LOCATIONS OF UNDERGROUND PIPES AND CONDUITS HAVE BEEN DETERMINED FROM AFOREMENTIONED PLANS OF RECORD 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 BY THE CONTRACTOR. CALL THE DIG SAFE CENTER TOLL FREE AT 1-888-344-7233 IN MA, ME, NH, RI & VT, CALL 1-800-922-4455 IN CT 72 HOURS (48 HOURS IN VT AND CT) PRIOR TO EXCAVATION. NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO EXCAVATION. ANY DAMAGE TO UTILITIES WHICH ARE SHOWN ON THE PLANS OR DETAILED BY DIG SAFE SHALL BE THE SITE CONTRACTORS RESPONSIBILITY.
19. IF CONCRETE TRUCKS ARE WASHED OUT ONSITE, ALL WASHOUT MUST BE COMPLETED IN THE DESIGNATED CONCRETE WASHOUT AREA.
20. ALL PERMANENT SLOPES GRADED 3:1 SHOULD BE COVERED WITH A SEMI-PERMANENT BIODEGRADABLE EROSION CONTROL BLANKET.
21. ALL PERMANENT SLOPES GRADED GREATER THAN 3:1 AND UP TO 2:1 SHALL BE COMPLETELY COVERED WITH PERMANENT NON-BIODEGRADABLE EROSION CONTROL BLANKETS.

Traffic Notes:

1. DURING CONSTRUCTION TRAFFIC CONES ARE TO BE USED FOR SEPARATION OF ACTIVE TRAFFIC FROM WORK ZONE.
2. DURING CONSTRUCTION FLAGGERS SHALL BE EMPLOYED TO ENSURE SAFETY FOR INTERACTION OF CONSTRUCTION VEHICLES AND ACTIVE TRAFFIC.
3. ALL SIGNS, FLAGGERS, TRAFFIC CONTROL DEVICES, AND TEMPORARY TRAFFIC ZONE ACTIVITIES SHALL MEET THE REQUIREMENTS OF THE MUTCD LATEST EDITION AND SUBSEQUENT ADDENDA.
4. TEMPORARY CONSTRUCTION SIGNS SHALL BE MOUNTED ON RIDOT APPROVED SUPPORTS AND SHALL BE REMOVED OR COVERED WHEN NOT APPLICABLE.
5. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION.

Layout and Materials:

1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
2. CURB RADII ARE 5 FEET UNLESS OTHERWISE NOTED.
3. CURBING SHALL BE PRECAST CONCRETE, MONOLITHIC CONCRETE, CAST IN-PLACE CONCRETE, BITUMINOUS CURB, BITUMINOUS BERM OR GRANITE OR AS LABELED ON THE PLANS.
4. SIDEWALK SHALL BE CONCRETE, EXPOSED AGGREGATE CONCRETE, STAMPED CONCRETE OR BITUMINOUS OR AS LABELED ON THE PLANS.
5. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
6. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
7. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.
8. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.

General Notes:

1. ALL LOTS WITHIN THE SITE ARE ZONED INDUSTRIAL.
2. THE OWNER OF AP 107 LOTS 803-812 & 816 IS: TOWN OF TIVERTON, 343 HIGHLAND ROAD, TIVERTON, RI 02878

   THE APPLICANT IS: LONGPLEX LLC, 796 AQUIDNECK AVENUE, MIDDLETOWN, RI 02842
3. TOPOGRAPHY SHOWN BASED ON RIGIS LIDAR DATA DERIVED FROM A 1-METER RESOLUTION DEM ORIGINALLY DEVELOPED AS PART OF THE SPRING 2011 NORTHEAST LIDAR PROJECT, DATUM NAVD 88.
4. THIS SITE IS LOCATED IN A FEMA UNSHADED ZONE X. REFERENCE FEMA FLOOD INSURANCE PANEL 44005C0043H. PANEL NOT PRINTED BY FEMA SINCE THERE ARE NO SPECIAL FLOOD HAZARD AREAS.

   ZONE X (UNSHADED) - THIS SITE IS LOCATED IN FEMA FLOOD ZONE X. ZONE X ARE AREAS WHERE THERE IS MINIMAL FLOODING.
5. THE BOUNDARY LINE AS SHOWN ON THIS PLAN DEPICTS A CLASS I SURVEY AS PERFORMED BY DIPRETE ENGINEERING ASSOCIATES, INC. THE PLAN ITSELF CONFORMS ONLY TO A CLASS III STANDARD AS ADOPTED BY RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS. THIS PLAN IS NOT TO BE CONSTRUED AS A CLASS I BOUNDARY PLAN AND IS NOT SUITABLE FOR RECORDING AS A CLASS I STANDARD.
6. SOIL MAPPING OBTAINED FROM SOIL SURVEY OF RHODE ISLAND, PREPARED BY U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.
7. THE SITE IS NOT WITHIN A:
   - GROUNDWATER PROTECTION AREA (RIDEM)
   - NATURAL HERITAGE AREAS (RIDEM)
   - GROUNDWATER PROTECTION OVERLAY DISTRICT (TOWN)
8. DETAILED SOIL EROSION AND SEDIMENT CONTROL MEASURES TO BE INCORPORATED AT THE PRELIMINARY DESIGN STAGE AND WILL CONFORM TO RIDEM BEST MANAGEMENT PRACTICES.
9. THE SITE IS TO BE SERVICED BY PUBLIC WATER AND PUBLIC SEWER.
10. ROADWAY TO BE PRIVATE 24' WIDE PAVEMENT (11' TRAVEL LANES AND 1' BERM ON EACH SIDE EXCEPT FOR CONCRETE CURB WHERE SHOWN).
11. THE DRAINAGE SYSTEM IS DESIGNED TO MEET THE TOWN OF TIVERTON SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WITH THE USE OF CATCH BASINS, CULVERTS, AND DRAINAGE BMPS. THE STORMWATER MANAGEMENT SYSTEM MEETS THE RIDEM BEST MANAGEMENT PRACTICES.
12. THE SITE IS PROPOSED TO BE BUILT IN 1 PHASE.
13. BORINGS B-1 THROUGH B-23. B-5(88) THROUGH B-8(88), TP-1(88) THROUGH TP-6(88) AND TP-10(88) OBTAINED FROM REPORT ENTITLED TIVERTON POWER ASSOCIATED GEOTECHNICAL REPORT, TIVERTON INDUSTRIAL PARK TIVERTON, RHODE ISLANDED, DATED DECEMBER 1998 PREPARED BY MAGUIRE GROUP INC. ADDITONAL TEST PITS AND SOIL EVALUATIONS WERE COMPLETED BY DIPRETE ENGINEERING ON FEBRUARY 17, 2016.
14. WETLANDS DELINEATED AND SURVEYED USING GPS SUBMETER TECHNOLOGY BY DIPRETE ENGINEERING, 2 STAFFORD COURT, CRANSTON, RI 02920 (401)943-1000. WETLAND EDGE VERIFIED UNDER RIDEM PERMIT NUMBER OCTA-11-012.
15. REFER TO RIDEM FRESHWATER WETLANDS PRELIMINARY DETERMINATION APPLICATION NO. 16-0116 AND RIPDES PROGRAM FILE NO. RIR 101405.

Soil Information:

(REFERENCE: SOIL SURVEY OF RHODE ISLAND, U.S.D.A. SOIL CONSERVATION SERVICE)

SOIL NAME	DESCRIPTION
BsB	BROADBROOK VERY STONY SILT LOAM, 0%-8% SLOPES
CeC	CANTON AND CHARLTON FINE SANDY LOAMS, VERY ROCKY, 3%-15% SLOPES
Mc	MANSFIELD VERY STONY MUCKY SILT LOAM

ADA Notes:

1. ALL IMPROVEMENTS SHALL COMPLY WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)" BY THE DEPARTMENT OF JUSTICE.
2. MAXIMUM RUNNING SLOPE ALONG ALL ACCESSIBLE PATHS OF TRAVEL SHALL BE 4.5% OR 0.045 '/, AND MAXIMUM CROSS SLOPE ALONG ALL ACCESSIBLE PATHS OF TRAVEL SHALL BE 0.015'/,.
3. MAXIMUM SLOPE IN ALL DIRECTIONS FOR ALL ACCESSIBLE PARKING SPACES AND LOADING AREAS SHALL BE 0.015'/,.
4. A 5'x5' LANDING WITH A MAXIMUM SLOPE OF 1.5% OR 0.015'/, IN ALL DIRECTIONS SHALL BE PROVIDED IN FRONT OF ALL PUBLICLY ACCESSIBLE BUILDING ENTRANCES/EGRESSES.
5. SIDEWALK CURB RAMPS SHALL COMPLY WITH DIPRETE ENGINEERING DETAILS THAT MEET OR EXCEEDING RIDOT STANDARDS 43.3.0, 43.3.1, & 43.4.1 AS SHOWN ON THE DETAIL SHEET.
6. PLEASE NOTE THAT THE GRADING AND PLAN VIEWS AS WELL AS THE STANDARD DETAILS MAY NOT SHOW THE DETAIL NECESSARY TO CONSTRUCT WALKWAYS AND RAMPS TO ADA STANDARDS. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE LEVEL OF CARE NECESSARY TO BE CERTAIN THAT THE CONSTRUCTED PRODUCT MEETS ADA STANDARDS. IN THE EVENT OF ANY CONFLICTS THE CONTRACTOR SHALL NOTIFY THE DESIGNER BEFORE CONSTRUCTION FOR ADVICE IN FINDING A RESOLUTION.

Demolition Notes:

1. ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS FROM OTHERS, OR INFORMATION PROVIDED TO DIPRETE ENGINEERING AND ARE SUBJECT TO CHANGE. THE LOCATIONS OF UNDERGROUND PIPES AND CONDUITS HAVE BEEN DETERMINED FROM AFOREMENTIONED PLANS OF RECORD 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 BY THE CONTRACTOR. CALL THE DIG SAFE CENTER TOLL FREE AT 1-888-344-7233 IN MA, ME, NH, RI & VT, CALL 1-800-922-4455 IN CT 72 HOURS (48 HOURS IN VT AND CT) PRIOR TO EXCAVATION. NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO EXCAVATION. ANY DAMAGE TO UTILITIES WHICH ARE SHOWN ON THE PLANS OR DETAILED BY DIG SAFE SHALL BE THE SITE CONTRACTORS RESPONSIBILITY.
2. CONTRACTOR TO OBTAIN ALL FEDERAL, STATE, AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.
3. CONTRACTOR TO PERFORM DAILY SWEEPING AT CONSTRUCTION ENTRANCES DURING DEMOLITION AND CONSTRUCTION TO PREVENT SEDIMENTS FROM TRACKING ON THE PUBLIC RIGHT-OF-WAY.
4. ANY DAMAGE TO EXISTING BUILDING AND PROPERTY CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) ALL MATERIALS INDICATED ON THE PLANS UNLESS SPECIFIED OTHERWISE HERE IN. R&D MATERIALS TO INCLUDE BUT NOT LIMITED TO PAVEMENT, GRAVEL, CATCH BASINS, MANHOLES, GRATES/FRAMES/COVERS, AND ANY EXCESS SOIL THAT IS NOT INCORPORATED INTO THE WORK.
6. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, ALL DISTURBED AREAS INCLUDING THE CONTRACTOR'S STOCKPILE AND STAGING AREAS WITHIN THE LIMIT OF WORK SHALL BE RESTORED TO MATCH THE DESIGN PLANS.

Dimensional Regulations:

	REQUIRED	PROPOSED
CURRENT ZONING:	INDUSTRIAL (I) PLANNED DEVELOPMENT PARK	INDUSTRIAL (I) PLANNED DEVELOPMENT PARK
MINIMUM LOT AREA:	40,000 SF	752,281 SF (17.21 AC)
MINIMUM FRONTAGE AND LOT WIDTH:	120'	240.82'
MINIMUM FRONT AND CORNER SIDE YARD:	20'	240.82'
MINIMUM SIDE YARD:	30'	54.9' MIN.
MINIMUM REAR YARD:	40'	N/A
MAXIMUM STRUCTURE HEIGHT:	65'	<65'
MAXIMUM BUILDING COVERAGE:	70%	123,200 SF BLDG/ 692,154 SF LOT AREA = 17.8%

Development Data:

BUILDING 1 AREA:	123,200 SF +/-
REQUIRED PARKING SPACES:	
RESTAURANT & PUBLIC ASSEMBLY: BUILDING 1	895 PEOPLE WITH 1 SPACE/4 PEOPLE
OFFICE & RETAIL: BUILDING 1	16,500 SF WITH 1 SPACE/ 300 SF
PARKING SPACES PROPOSED:	276
ADA SPACES REQUIRED:	7

Lot Area Calculations:

TIVERTON ZONING

ARTICLE ii SECTION C(89)
UNSUITABLE LAND = 22,804 SF WETLAND AREA + 37,323 SF AREA WITH >21% SLOPES = 60,127 SF
SUITABLE LAND = 752,281 SF TOTAL AREA - 60,127 SF UNSUITABLE LAND = 692,154 SF

ARTICLE V SECTION 3
a. LOT COVERAGE
PROPOSED LOT COVERAGE = 300,154 SF IMPERVIOUS AREA /692,154 SF = 43.5%

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OFFICE OF WATER RESOURCES
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Christine D. Venezia

Existing Legend:

NOTE: LEGEND ITEMS ARE STANDARD AND DO NOT APPEAR ON EVERY SHEET.

PROPERTY LINE
SETBACK
ASSESSOR LINE
MINOR CONTOUR — 156 —
MAJOR CONTOUR — 160 —
EDGE OF COASTAL FEATURE
200' CRMC JURISDICTION LINE
FENCE
STONE WALL
RETAINING WALL
BUILDING
PAVEMENT AREAS
OVERHEAD WIRES — OHW —
UNDERGROUND ELECTRIC — E — E —
GAS LINE — G — G —
WATER LINE — W — W —
SEWER LINE — S — S —
WATER VALVE WV
GAS VALVE GV
UTILITY POLE
GUY WIRE
ELECTRIC MANHOLE (E)
SEWER MANHOLE (S)
DRAINAGE MANHOLE (D)
CATCH BASIN (C)
HYDRANT

Proposed Legend:

NOTE: LEGEND ITEMS ARE STANDARD AND DO NOT APPEAR ON EVERY SHEET.

SILT FENCE
LIMIT OF DISTURBANCE
BUILDING FOOTPRINT
BUILDING OVERHANG
SAW CUT/MATCH AREA
EDGE OF PAVEMENT
CONCRETE SIDEWALK
EDGE OF BERM
EDGE OF CURB
ASPHALT PAVEMENT
CONCRETE (PAD, SIDEWALK)
RETAINING WALL
DRAIN LINE
GRAVITY SEWER LINE — S — S —
MANHOLE
WATER LINE — W —
WATER LINE — ETC —
ONE FOOT CONTOUR 310
SPOT ELEVATION +312
DRAIN FLOW ARROW
SOIL EVALUATION SE
BUILDING ENTRY

Abbreviations:

PR	PROPOSED
EX	EXISTING
AP	ASSESSOR'S PLAT
TYP	TYPICAL
SF	SQUARE FEET
N/F	NOW OR FORMERLY

FEB 21 2017

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Boston • Providence • Newport

KEVIN DEMERS
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13	3.8.2017	Response to DEM Comments	K.D.
12	11-29-2016	Response to Town Comments	K.D.
11	11-17-2016	Response to NGRID Comments	K.D.
10	10-11-2016	Response to Town Comments	K.D.
9	10-11-2016	Site Modifications	K.D.
8	9-29-2016	Response to NGRID Comments	K.D.
7	9-29-2016	Response to DEM Comments	K.D.
6	8-2-2016	Response to DEM Comments	K.D.
5	7-29-2016	Response to Town Comments	A.K.
4	7-29-2016	RIDEM PD Response to Comments	K.D.
No.	Date	Description	By:

Drawn By: ACA | Design By: MT

Notes

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 806, 806, 807, 808, 809, 810 and Part Lots 803 & 816 in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

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SHEET 3 OF 17

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Route 24

Industrial Way

NOTE: ENTRANCE TO BE USED BY ELECTRIC AND FIRE VEHICLES ONLY.

PR 24' WIDE X 15' HIGH ENTRANCE SIGN

EXISTING UTILITY POLES (STRUCTURE #3)

EXISTING UTILITY POLES (STRUCTURE #4)

EXISTING UTILITY POLES (STRUCTURE #5)

Sediment Forebay 1B
TOP=195.0
BOTTOM=190.0

Sand Filter 1B
TOP=195.0
BOTTOM=192.0

Detention Pond 1B
TOP=195.0
BOTTOM=190.0

Sand Filter 1C
TOP=195.0
BOTTOM=193.5

Overhang & Ice Rink (190'x85')
21,000 sf
FFE=197.00

Portion of Detention Pond 1B
TOP STONE=194.0
BOTTOM STONE=190.5

Sediment Forebay 1C
TOP=195.5
BOTTOM=190.0

Building
123,860 sf
FFE=198.00

Proposed Phase 2 Building
20,140 sf
FFE=198.00

Detention Pond 2A
TOP =204.0
BOTTOM=199.0

Sediment Forebay 2A
TOP =204.0
BOTTOM=200.0

Sand Filter 2A
TOP =204.0
BOTTOM=201.0

Sediment Forebay 1D
TOP=193.0
BOTTOM=190.0

Sand Filter 1D
TOP=193.0
BOTTOM=190.0

Detention Pond 1D
TOP=193.0
BOTTOM=188.0

Detention Pond 1A
TOP=193.0
BOTTOM=187.0

Sand Filter 1A
TOP=193.0
BOTTOM=188.0

Sediment Forebay 1A
TOP=193.0
BOTTOM=187.0

PROPOSED REMOVABLE BOLLARDS (SEE DETAILS-8)

PROPOSED 20' WIDE MAINTENANCE DRIVE (GRASS & PAVERS)

PROPOSED ASPHALT BERM (TYPICAL)

PROPOSED RETAINING WALL

DUMPSTER LOCATION

EX WETLAND FLAG AND LINE

PR LOT LINE

SWAMP WETLAND

PARKING LOT (TYP)

9' X 18' PARKING SPACE (TYP)

COVERED WALKWAY

BUILDING ENTRANCE 24' (TYP)

CONCRETE MECHANICAL PADS (TYP)

LANDSCAPE AREA

20' WIDE MAINTENANCE DRIVE (PAVED)

35' SIDE SETBACK

40' FRONT SETBACK

50' PERIMETER WETLAND

100' BACK

See Right

See Left

Progress Road

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

National Grid Note:

1. A VARIANCE IS REQUIRED FOR THE EMERGENCY ACCESS DRIVEWAY OFFSET FROM STRUCTURE #3. IN ORDER TO PREVENT DISTURBANCE TO THE PERIMETER WETLANDS IN ACCORDANCE WITH RIDEM INSIGNIFICANT ALTERATION PERMIT NO. 16-0116, THE DRIVEWAY IS REQUIRED TO BE LOCATED LESS THAN 10' FROM STRUCTURE #3. THIS DRIVEWAY IS PROPOSED TO BE USED FOR EMERGENCY AND ELECTRIC VEHICLES ONLY, AND A GUARDRAIL WILL BE INSTALLED AT THE NEAREST APPROACH TO PROTECT THE STRUCTURE.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 24 2017 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Martin D. Wencek

DiPrete Engineering
Two Stafford Court, Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.dipreteeng.com
Boston • Providence • Newport

KEVIN DEMERS
No. 18557
REGISTERED PROFESSIONAL ENGINEER
CIVIL

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No.	Date	Description	By
14	2-8-2017	Response to DEM Comments	KJD
13	11-30-2016	Response to Town Comments	KJD
12	11-29-2016	Response to Town Comments	KJD
11	11-14-2016	Response to NGrid Comments	KJD
10	10-11-2016	Site Modifications	KJD
9	9-27-2016	Response to NGrid Comments	KJD
8	9-7-2016	Response to NGrid Comments	KJD
7	8-23-2016	Response to DEM Comments	KJD
6	8-9-2016	Response to NGrid Comments	ACA
5	7-29-2016	Response to Comments	ACA
4	7-1-2016	Rt 24 PD Response to Comments	KJD

Drawn By: ACA | Design By: MT

Site Layout Plan

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816 in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

DE Job No: 0XXX-XXX

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SHEET 4 OF 17

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Route 24

Industrial Way

Progress Road

50' PERIMETER WETLAND

Building
123,200± sf
(284 Parking Spaces)
FFE=198.00

Proposed Phase 2 Building 20,140 sf FFE=198.00

Sediment Forebay 1B TOP=199.0 BOTTOM=195.0

Sand Filter 1B TOP=198.0 BOTTOM=194.0

Detention Pond 1B TOP=198.0 BOTTOM=194.0

Sediment Forebay 1C TOP=196.5 BOTTOM=192.5

Portion of Detention Pond 1B TOP ELEV=198.0 BOTTOM ELEV=194.0

Overhang & Ice Rink (190'x85') 21,000 sf FFE=197.00

Sediment Forebay 1D TOP=193.5 BOTTOM=189.5

Sand Filter 1D TOP=193.5 BOTTOM=189.5

Detention Pond 1D TOP=193.5 BOTTOM=189.5

Sediment Forebay 1A TOP=203.5 BOTTOM=199.5

Sand Filter 1A TOP=203.5 BOTTOM=199.5

Detention Pond 1A TOP=203.5 BOTTOM=199.5

Sediment Forebay 1E TOP=203.5 BOTTOM=199.5

Sand Filter 1E TOP=203.5 BOTTOM=199.5

UP #1 UP #2 UP #3 UP #4 UP #5 UP #6 UP #7 UP #8 UP #9 UP #10 UP #11 UP #12 UP #13 UP #14 UP #15

Scale: 1"=80'
0 40' 80' 160'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
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Martin D. Wencek

FEB 21 2017

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KEVIN DEMERS
No. 18567
REGISTERED PROFESSIONAL ENGINEER
CIVIL

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13	3-8-2017	Response to DEM Comments	K.J.D.
12	12-22-2016	Response to Sewer Comments	K.J.D.
11	11-17-2016	Response to NRSD Comments	K.J.D.
10	10-31-2016	Response to Town Comments	K.J.D.
9	10-11-2016	Site Modifications	K.J.D.
8	9-19-2016	Response to NRSD Comments	K.J.D.
7	9-12-2016	Response to Town Comments	K.J.D.
6	8-2-2016	Response to DEM Comments	K.J.D.
5	7-29-2016	Response to Town Comments	A.C.A.
4	7-7-2016	RIDEM PD Response to Comments	K.J.D.
3	6-29-2016	Site Modifications	K.J.D.
2	6-8-2016	Response to Town Comments	K.J.D.
1	5-2-2016	RIDEM PD Response to Comments	K.J.D.
No.	Date	Description	By:

Drawn By: ACA Design By: MT

Utility Plan - Overall

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

SHEET 5 OF 17

DE Job No: 0XXX.XXX Copyright 2017 by DiPrete Engineering Associates, Inc.

z:\domain\projects\1895-001 tiverton industrial park\autocad drawings\1895-001-h02-dsen.dwg Plotted: 2/15/2017

Route 24

Industrial Way

LIMIT OF WORK

EXISTING POWER POLES

3"ø SEWER FORCE MAIN
@1,510 LF±

Sediment Forebay 1B
TOP=195.0
BOTTOM=190.0

Sand Filter 1B
TOP=195.0
BOTTOM=192.0

Detention Pond 1B
TOP=195.0
BOTTOM=190.0

Sand Filter 1C
TOP=195.0
BOTTOM=193.5

Overhang & Ice Rink (190'x85')
21,000 sf
FFE=197.00

Portion of Detention Pond 1B
TOP STONE=194.0
BOTTOM STONE=190.5

Building
123,860 sf
FFE=198.00

Proposed Phase 2 Building
20,140 sf
FFE=198.00

Sediment Forebay 1C
TOP=195.5
BOTTOM=190.0

Detention Pond 1A
TOP=193.0
BOTTOM=187.0

Sand Filter 1A
TOP=193.0
BOTTOM=188.0

Sediment Forebay 1A
TOP=193.0
BOTTOM=187.0

Sediment Forebay 1D
TOP=193.0
BOTTOM=190.0

Sand Filter 1D
TOP=193.0
BOTTOM=190.0

Detention Pond 1D
TOP=193.0
BOTTOM=188.0

Detention Pond 2A
TOP =204.0
BOTTOM=199.0

Sediment Forebay 2A
TOP =204.0
BOTTOM=200.0

Sand Filter 2A
TOP =204.0
BOTTOM=201.0

12" RCP
10 LF
S=1.63%

12" HDPE
22 LF
S=1.00%

CB-16
STA=1+43 11'L
RIM=195.03
INV OUT=192.39(9)

FES-10
INV IN=192.00(9)

CB-9
STA=1+43 11'R
RIM=195.03
INV IN=192.17(16)
INV OUT=192.17(10)

CB-15
STA=2+63 11'L
RIM=195.64
INV OUT=192.95(12)

FES-13
INV IN=190.00(12)

24" HDPE
100 LF
S=1.00%

CB-12
STA=2+63 11'R
RIM=195.64
INV IN=192.73(15)
INV IN=191.00(48)
INV OUT=191.00(13)

12" HDPE
22 LF
S=1.00%

24" HDPE
106 LF
S=1.00%

EXISTING POWER POLES

BOYDCO PUMPING STATION
INV IN=190.09
INV OUT=191.0
END SFM AT SMH-25 AT INTERSECTION OF INDUSTRIAL WAY & PROGRESS ROAD
SMH-25 INV IN=187.15

6" HDPE OUTLET
INV=193.50(HDPE CO)

6" HDPE
108 LF
S=0.31%

SEWER PIPE
INV=190.29

12" RCP
87 LF
S=1.00%

6" PVC
SEWER PIPE
30 LF
S=1.00%

SEWER PIPE
INV=190.59

6" PVC
SEWER PIPE
53 LF
S=1.00%

CB-46
STA=1+55 185'R
RIM=195.22
INV OUT=193.08(47)

OS-55
STA=1+87 190'R
RIM=193.00
INV IN=189.00(CPv)
INV OUT=189.00(56)

6" PVC
SEWER PIPE
59 LF
S=2.00%

HDPE CO
RIM=196.52
INV IN=193.83
INV OUT=193.83

12" HDPE
22 LF
S=1.00%

CB-14
STA=4+57 11'L
RIM=196.54
INV IN=193.84(32)
INV OUT=193.84(11)

SEWER PIPE
INV=191.12

12" HDPE
37 LF
S=1.00%

12" HDPE
47 LF
S=2.00%

18" RCP
60 LF
S=3.74%

FES-75
INV=190.00(74)

18" RCP
32 LF
S=2.94%

6" HDPE
222 LF
S=0.30%

SEWER
INV. 194.5

DMH-48
STA=3+71 8'R
RIM=196.68
INV IN=192.75(11)
INV IN=192.56(49)
INV OUT=192.06(12)

CB-32
STA=4+92 22'L
RIM=196.82
INV OUT=194.21(14)

6" PVC
SEWER PIPE
171 LF
S=1.00%

FES-56
INV IN=186.75(55)

CB-47
STA=1+88 219'R
RIM=195.45
INV IN=192.13(46)
INV OUT=192.03(44)

12" HDPE
111 LF
S=1.00%

CB-74
RIM=195.0
INV OUT=190.98(75)

SEWER
INV. 194.5

6" PVC
SEWER PIPE
59 LF
S=2.00%

CB-1
STA=4+58 11'R
RIM=196.55
INV IN=193.62(14)
INV OUT=193.62(48)

6" PVC
SEWER PIPE
59 LF
S=2.00%

SEWER
INV. 194.5

PR 6" WYE AND CLEANOUT (TYP)

6" PVC
SEWER PIPE
59 LF
S=2.00%

SEWER
INV. 194.5

6" PVC
SEWER PIPE
47 LF
S=2.00%

SMH-
INV IN(S)=192.99
INV IN(E)=193.38
INV OUT=192.83

6" PVC
SEWER PIPE
32 LF
S=1.00%

PR 4,000 GALLON GREASE INTERCEPTOR
INV IN=193.56
INV OUT=193.31

CB-25
STA=7+31 22'L
RIM=196.36
INV OUT=193.75(23)

12" HDPE
17 LF
S=2.43%

DCB-23
STA=7+44 11'L
RIM=198.30
INV IN=193.34(25)
INV OUT=193.34(1)

12" HDPE
22 LF
S=1.09%

FLAT TOP CB-31
STA=8+78 135'L
RIM=205.26
INV IN=202.03(28)
INV OUT=202.03(21)

15" HDPE
76 LF
S=1.00%

CB-33
STA=8+14 10'L
RIM=197.61
INV OUT=192.79(2)

12" HDPE
22 LF
S=1.03%

DCB-
STA=7+44 11'R
RIM=198.30
INV IN=193.10(23)
INV OUT=192.85(2)

DMH-2 (5' DIA)
STA=8+20 11'R
RIM=197.98
INV IN=192.09(1)
INV IN=192.57(33)
INV OUT=190.98(3)

FLAT TOP CB-28
STA=8+88 84'L
RIM=206.01
INV IN=202.68(30)
INV OUT=202.57(31)

18" HDPE
54 LF
S=1.00%

FLAT TOP DCB-
STA=9+05 228'L
RIM=204.12
INV IN=201.33(27)
INV IN=200.83(31)
INV OUT=200.33(22)

18" HDPE
120 LF
S=1.00%

24" HDPE
33 LF
S=1.00%

12" HDPE
49 LF
S=1.00%

18" HDPE
102 LF
S=0.82%

CB-27
STA=9+17 204'L
RIM=204.77
INV OUT=201.82(21)

FES-68
INV=207.96(67)

CB-30
STA=9+42 33'L
RIM=209.14
INV IN=205.61(29)
INV IN=203.77(37)
INV OUT=203.52(28)

12" HDPE
62 LF
S=1.00%

15" HDPE
127 LF
S=1.07%

15" HDPE
58 LF
S=1.00%

DMH-67
STA=9+63 240'L
RIM=213.6
INV IN=209.32(66)
INV OUT=209.32(68)

DCB-37
STA=9+86 11'L
RIM=207.54
INV IN=204.93(78)
INV IN=204.60(42)
INV OUT=204.35(30)

CB-29
STA=9+71 75'L
RIM=210.73
INV OUT=206.23(30)

8" HDPE
55 LF
S=1.93%

CB-36
STA=11+04 11'R
RIM=212.34
INV OUT=208.34(42)

12" HDPE
114 LF
S=3.16%

15" HDPE
40 LF
S=9.99%

15" HDPE
118 LF
S=1.00%

DMH-66
STA=9+88 155'L
RIM=213.8
INV IN=210.50(64)
INV OUT=210.50(67)

FES-64
INV=214.50(66)

CB-42
STA=11+04 11'L
RIM=212.24
INV IN=208.85(41)
INV IN=208.23(36)
INV OUT=208.22(37)

12" HDPE
22 LF
S=0.50%

6" PERFORATED PVC LOW FLOW OUTLET
INV=199.00

DMH FLAT TOP (18"ø)
RIM=201.00
INV OUT=198.20

FES-22
INV IN=200.00(21)

LIMIT OF POWER EASEMENT

SWAMP WETLAND

50' PERIMETER WETLAND

CB FLAT TOP-50 (18"ø)
RIM=191.50
INV OUT=187.00(51)

CB FLAT TOP-52 (18"ø)
RIM=189.90
INV OUT=187.00(53)

CB-3
STA=10+96 188'R
RIM=194.00
INV IN=188.38(2)
INV OUT=188.38(4)

1/4 ROOF SHALL BE DRAINED TO FRONT ROOF DRAIN MANIFOLD AND DISCHARGE TO SEDIMENT FOREBAY 1B

1/2 ROOF SHALL DRAIN TO SAND FILTER 2A

1/4 ROOF SHALL DRAIN TO SAND FILTER 1A

PR YARD DRAIN
RIM=195.5
INV=190.8

18" HDPE
26 LF
S=1.16%

15" HDPE
50 LF
S=4.03%

15" C.I. PIPE
243 LF
S=1.07%

6" DI FIRE SERVICE

4" DI DOMESTIC SERVICE

FIRE HYDRANT (TYP)

8" DI WATER SERVICE

ELECTRIC SERVICE

6" DI WATER LINE (TYP)

15" HDPE
89 LF
S=1.00%

15" HDPE
66 LF
S=0.96%

DMH-4
STA=11+09 226'R
RIM=198.58
INV IN=187.75(3)
INV OUT=187.89(5)

FES-45
INV IN=190.00(44)

FES-18 (1)
INV IN=192.00(17 (1))

FES-5
INV IN=187.00(4)

FES-18
INV IN=188.00(17)

FES-51
INV IN=186.70(50)

FES-53
INV IN=186.70(52)

DMH-44
STA=3+20 291'R
RIM=195.99
INV IN=190.92(47)
INV OUT=190.92(45)

6" HDPE INLET
INV=194.5

12" HDPE
20 LF
S=4.61%

15" HDPE
47 LF
S=2.13%

CB FLAT TOP-
RIM=191.50
INV OUT=187.00(51)

STAKED SILT FENCE OR ENGINEER APPROVED EQUAL SHALL BE INSTALLED AT ALL DOWN-GRADIENT LIMITS OF WORK (TYPICAL)

EX WETLAND FLAG AND LINE

PROPOSED RETAINING WALL (TYP.)

PR LOT LINE

SWAMP WETLAND

50' PERIMETER WETLAND

See Left

See Right

12" HDPE
144 LF
S=4.74%

CB-40
STA=12+50 11'R
RIM=222.76
INV IN=218.76(41)

CB-41
STA=12+50 11'L
RIM=221.62
INV OUT=215.66(42)
INV OUT=218.98(40)

12" HDPE
22 LF
S=1.00%

8" DI WATER SERVICE

PROPOSED SERVICE CONNECTIONS

UP #12

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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Martin D. Wencek

FEB 21 2017

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13	11-29-2016	Response to Sewer Comments	K.D.
12	11-16-2016	Response to Fire Comments	K.D.
11	11-16-2016	Response to NGRID Comments	K.D.
10	9-15-2016	Re-Submit to NGRID Comments	K.D.
9	8-2-2016	Response to NGRID Comments	K.D.
8	8-2-2016	Re-Submit to Town Comments	K.D.
7	7-28-2016	Response to Town Comments	J.A.K.
6	7-19-2016	Response to Comments	K.A.
5	7-12-2016	Response to Submittal Comments	K.D.
4	6-29-2016	Re-Submittal	K.D.
3	6-15-2016	Re-Submittal	K.D.
2	5-25-2016	Re-Submittal	K.D.
1	4-29-2016	Re-Submittal	K.D.
0	3-30-2016	Re-Submittal	K.D.

Design By: MT
Drawn By: ACA

Utility Plan

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
795 Aquidneck Avenue, Middletown Rhode Island 02842

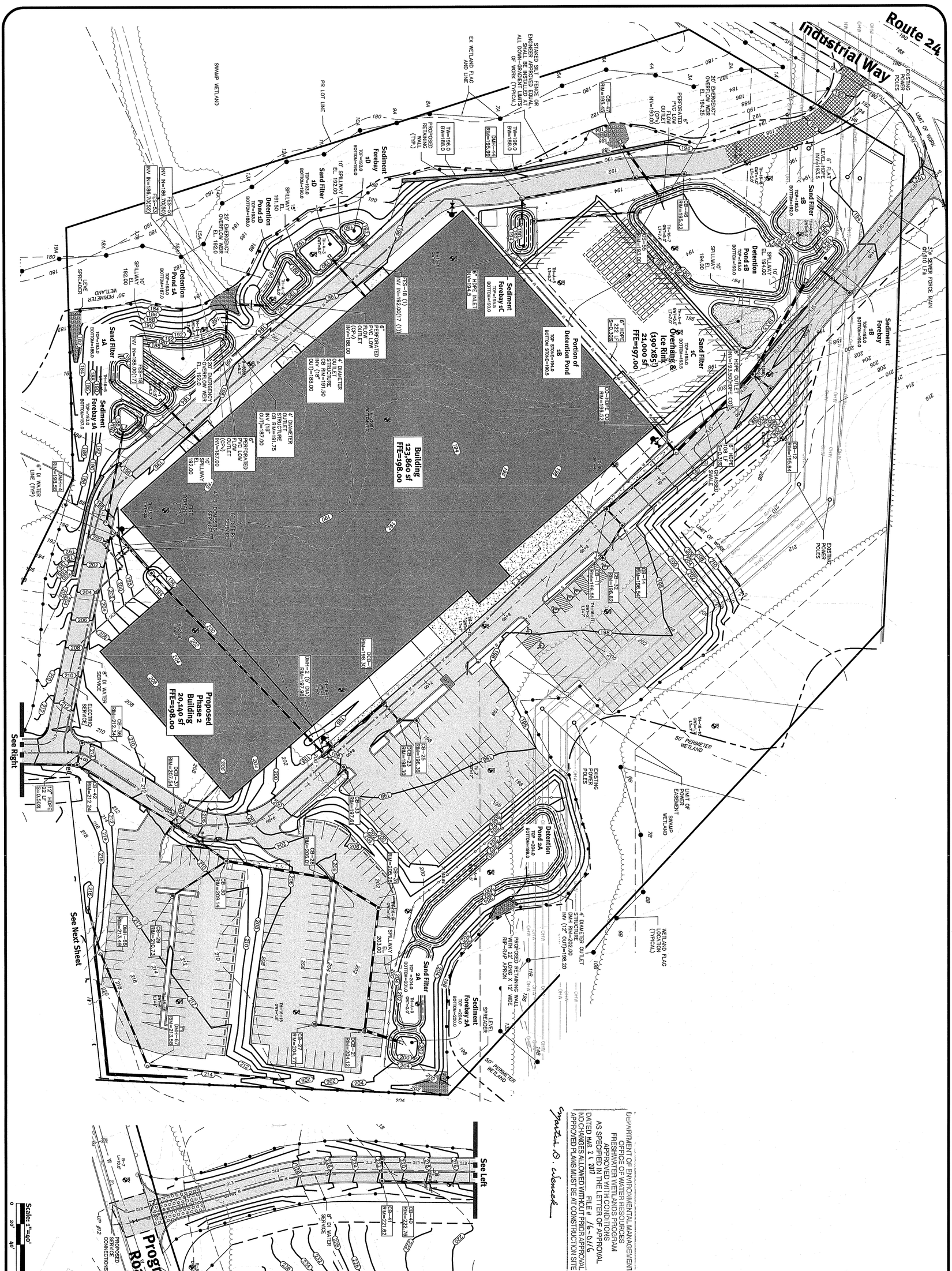
SHEET 6 OF 17

DE Job No: 0XXX.XXX

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 24 2017 FILE # 16-0176
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

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

FEB 21 2017

Grading Plan

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816 in Tiverton, Rhode Island 02878

Applicant

Longplex LLC

796 Aquidneck Avenue, Middletown Rhode Island 02842

SHEET 7 OF 17

No.	Date	Description	By:
14	2-8-2017	Response to DEM Comments	K.I.D.
13	11-22-2016	Response to Sewer Comments	K.I.D.
12	11-17-2016	Response to NGRID Comments	K.I.D.
11	11-14-2016	Response to NGRID Comments	K.I.D.
10	10-11-2016	Site Modifications	K.I.D.
9	9-15-2016	Response to NGRID Comments	K.I.D.
8	9-7-2016	Response to NGRID Comments	K.I.D.
7	8-2-2016	Response to DEM Comments	K.I.D.
6	7-28-2016	Response To Town Comments	I.A.R.
5	7-19-2016	Response to Comments	ACA
4	7-1-2016	RIDEM PD Response to Comments	K.I.D.

Drawn By: ACA | Design By: MT

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KEVIN DEAVERS — REGISTERED PROFESSIONAL ENGINEER — No. 15677 — STATE OF RHODE ISLAND

DiPrete Engineering

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CB-36
RIM=212.34

CB-42
RIM=212.24

DMH-66
RIM=213.49

8" DI WATER SERVICE

ELECTRIC SERVICE

12" HDPE
22 LF
S=0.50%

CB-40
RIM=222.76

CB-41
RIM=221.62

PROPOSED LIMIT OF WORK AND TREELINE

TH 1
GWT=3'-0"
L=11'+

TH 2
GWT=2'-6"
L=3'-6"

TH 3
GWT=1'-6"
L=3'-6"

TH 4
GWT=2'-0"
L=4'-0"

TH 5
GWT=4'-0"
L=15'+

B-7
L=10.0'

B-8
L=8.0'

B-9
L=10.0'

8" DI WATER SERVICE

PROPOSED STAKED SILT FENCE OR EQUAL EROSION CONTROL AT LIMIT OF WORK

PROPOSED STAKED SILT FENCE OR EQUAL EROSION CONTROL AT LIMIT OF WORK

Progress Road - 50' Public Right-of-Way

UP #14

UP #13

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 24 2017 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

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

FEB 21

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

KEVIN DEMERS
No. 8567
REGISTERED PROFESSIONAL ENGINEER
CIVIL

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No.	Date	Description	By:
14	2-28-2017	Response to DEM Comments	K.D.
13	2-28-2017	Response to CRMC Comments	K.D.
12	11-17-2016	Response to NRPB Comments	K.D.
11	10-24-2016	Response to NRPB Comments	K.D.
10	10-13-2016	Response to DEM Comments	K.D.
9	9-23-2016	Response to NRPB Comments	K.D.
8	8-26-2016	Response to DEM Comments	K.D.
7	8-5-2016	Response to DEM Comments	K.D.
6	7-28-2016	Response to Town Comments	K.D.
5	6-29-2016	Response to Town Comments	K.D.
4	7-1-2015	RIDEM PD Response to Comments	K.D.
No.	Date	Description	By:

Drawn By: ACA | Design By: MT

Grading Plan-2

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

DiPrete Eng. No. 0XXX-XXX

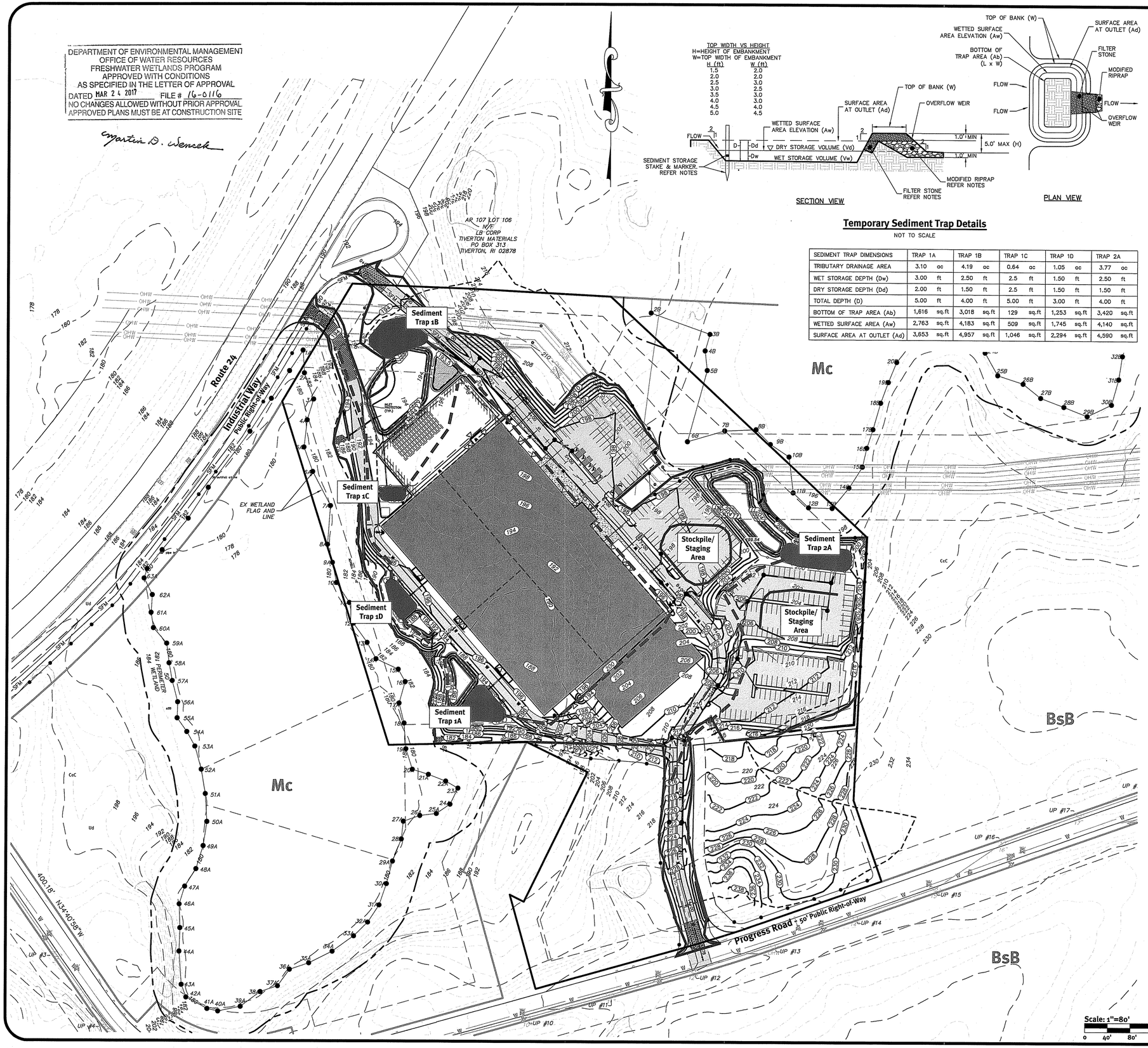
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SHEET 7a OF 17

z:\dems\projects\1895-001 tiverton industrial park\autocad drawings\1895-001-b02-dem.dwg Plotted: 2/15/2017

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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Cynthia D. Wenech



Scale: 1"=80'
0 40' 80' 160'

TOP WIDTH VS HEIGHT
H=HEIGHT OF EMBANKMENT
W=TOP WIDTH OF EMBANKMENT

H (ft)	W (ft)
1.5	2.0
2.0	2.0
2.5	3.0
3.0	2.5
3.5	3.0
4.0	3.0
4.5	4.0
5.0	4.5

Temporary Sediment Trap Details

NOT TO SCALE

SEDIMENT TRAP DIMENSIONS	TRAP 1A	TRAP 1B	TRAP 1C	TRAP 1D	TRAP 2A
TRIBUTARY DRAINAGE AREA	3.10 ac	4.19 ac	0.64 ac	1.05 ac	3.77 ac
WET STORAGE DEPTH (Dw)	3.00 ft	2.50 ft	2.5 ft	1.50 ft	2.50 ft
DRY STORAGE DEPTH (Dd)	2.00 ft	1.50 ft	2.5 ft	1.50 ft	1.50 ft
TOTAL DEPTH (D)	5.00 ft	4.00 ft	5.00 ft	3.00 ft	4.00 ft
BOTTOM OF TRAP AREA (Ab)	1,616 sq.ft	3,018 sq.ft	129 sq.ft	1,253 sq.ft	3,420 sq.ft
WETTED SURFACE AREA (Aw)	2,763 sq.ft	4,183 sq.ft	509 sq.ft	1,745 sq.ft	4,140 sq.ft
SURFACE AREA AT OUTLET (Ad)	3,653 sq.ft	4,957 sq.ft	1,046 sq.ft	2,294 sq.ft	4,590 sq.ft

SEDIMENT TRAP NOTES:

1. THE TEMPORARY SEDIMENT TRAP SHALL MEET ALL REQUIREMENTS FOR TEMPORARY SEDIMENT TRAPS OUTLINED IN THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK (LATEST REVISION) SECTION SIX: SEDIMENT CONTROL MEASURES
2. THE TEMPORARY SEDIMENT TRAP SHALL HAVE AN INITIAL STORAGE VOLUME OF 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER EXCEPT FOR THE EXCAVATED WET STORAGE AREA WHERE SLOPES SHALL NOT EXCEED 1.5:1.
4. THE OUTLET SHALL BE LOCATED AT THE MOST DISTANT HYDRAULIC POINT FROM THE INLET.
5. THE OUTLET CONSISTS OF A PERVIOUS STONE DIKE WITH A CORE OF MODIFIED RIPRAP AND FACED ON THE UPSTREAM SIDE WITH STONE.
6. TEMPORARY SEDIMENT TRAPS MUST OUTLET ONTO STABILIZED GROUND.
7. MAXIMUM HEIGHT OF A TEMPORARY SEDIMENT TRAP EMBANKMENT IS LIMITED TO 5 FEET.
8. SIDE SLOPES OF THE EMBANKMENT SHALL BE 2:1 OR FLATTER.
9. MODIFIED RIPRAP: SHALL MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.10.03.2.
10. FILTER STONE: SHALL MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.01.03 TABLE I, COLUMN V FILTER STONE.

SEDIMENT TRAP INSPECTION, MAINTENANCE, AND REMOVAL REQUIREMENTS:

1. INSTALL "SEDIMENT STORAGE" STAKE WITH A MARKER AT ONE HALF OF THE WET STORAGE VOLUME.
2. INSPECT THE TEMPORARY SEDIMENT TRAP AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.25 INCH OR GREATER.
3. CHECK THE OUTLET TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT.
4. CHECK FOR SEDIMENT ACCUMULATION AND FILTRATION PERFORMANCE.
5. WHEN SEDIMENTS HAVE ACCUMULATED TO ONE HALF THE MINIMUM REQUIRED VOLUME OF THE WET STORAGE, DEWATER THE TRAP AS NEEDED, REMOVE SEDIMENTS AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS.
6. DISPOSE OF THE SEDIMENT REMOVED FROM THE BASIN IN A SUITABLE AREA.
7. THE TEMPORARY SEDIMENT TRAP MAY BE REMOVED AFTER THE CONTRIBUTING DRAINAGE AREA IS STABILIZED.

INSTALLATION/STABILIZATION NOTES:

1. CLEAR, GRUB AND STRIP ANY VEGETATION AND ROOT MAT FROM ANY PROPOSED EMBANKMENT AND OUTLET AREA.
2. REMOVE STONES AND ROCKS WHOSE DIAMETER IS GREATER THAN THREE (3) INCHES AND OTHER DEBRIS.
3. EXCAVATE WET STORAGE AND CONSTRUCT THE EMBANKMENT AND/OR OUTLET AS NEEDED TO ATTAIN THE NECESSARY STORAGE REQUIREMENTS.
4. USE ONLY FILL MATERIAL FOR THE EMBANKMENT THAT IS FREE FROM EXCESSIVE ORGANICS, DEBRIS, LARGE ROCKS (OVER SIX (6) INCHES) OR OTHER UNSUITABLE MATERIALS. COMPACT THE EMBANKMENT IN 9-INCH LAYERS BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED
5. STABILIZE THE EARTHEN EMBANKMENT USING ANY OF THE FOLLOWING MEASURES, SEEDING FOR TEMPORARY VEGETATION COVER; SEEDING FOR PERMANENT VEGETATIVE COVER; OR SLOPE PROTECTION, IMMEDIATELY AFTER INSTALLATION
6. ALL UPGRADIENT DISTURBED AREAS SHALL BE STABILIZED BEFORE REMOVING SEDIMENTS FROM THE TEMPORARY TRAPS AND PREPARING THE AREAS FOR PERMANENT BMPs. FOLLOWING STABILIZATION, THE TEMPORARY SEDIMENT TRAPS SHALL BE OVER-DUG TO ENSURE REMOVAL OF ALL COLLECTED SEDIMENTS.
7. PRIOR TO BACKFILLING OF SAND FOR THE SAND FILTERS WHERE APPLICABLE, THE INFILTRATION RATES SHALL BE TESTED AND COMPARED TO THE DESIGN RATES AT EACH LOCATION. IF THE INFILTRATION RATES DO NOT MEET THOSE DESIGNED, FURTHER EXCAVATION AND BACKFILLING OF THE SAND FILTER AREAS SHALL BE PERFORMED AND AREAS RETESTED UNTIL APPROPRIATE INFILTRATION RATES ARE ARCHIEVED.

General Notes:

1. ALL EROSION CONTROL, DIVERSIONS, TEMPORARY SEDIMENTATION TRAP, ETC. SHALL BE INSTALLED PER THE RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL LATEST EDITION.
2. SILTFENCE/ STRAW WATTLE MUST BE INSTALLED AROUND ALL PROPOSED TREATMENT AREAS. NO CONSTRUCTION VEHICLES SHALL ENTER THESE STAKED AREAS.
3. SILTFENCE (OR AN APPROVED EROSION CONTROL DEVICE) AND DIVERSIONS SHALL BE USED TO CONTROL RUNOFF DURING CONSTRUCTION OF THE PROPOSED PAVEMENT AREAS. AFTER INITIAL PAVEMENT GRADING IS COMPLETE AND THE PERMANENT DRAINAGE INFRASTRUCTURE HAS BEEN CONSTRUCTED, THE DRAINAGE NETWORK SHALL BE BROUGHT ONLINE AND THE DIVERSIONS SHALL BE DECONSTRUCTED.
4. ONCE THE SEDIMENTATION TRAPS ARE NO LONGER REQUIRED AND ALL TRIBUTARY AREAS HAVE BEEN STABILIZED, THE AREAS SHALL BE BROUGHT TO FINAL DESIGN GRADES.
5. INLET PROTECTION SHALL BE INSTALLED ON ALL CATCH BASINS ONCE CONSTRUCTED.
6. SEE SECTION 1.2 OF THE RI SESC HANDBOOK FOR SEQUENCE OF CONSTRUCTION ACTIVITY.
7. SEE SECTION 2.2 OF THE RI SESC HANDBOOK FOR PROJECT PHASING.
8. CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH APPROVAL FROM DESIGN ENGINEER.
9. DETENTION PONDS & SAND FILTER AREAS SHALL BE STAKED OFF, DEMARCATED AND PROTECTED FROM CONSTRUCTION TRAFFIC DURING ALL CONSTRUCTION PHASES.
10. REFER DETAIL SHEETS FOR FURTHER INFORMATION

Soil Erosion Control Legend:

- DIVERSION RUNOFF CONVEYANCE MEASURE
- TRIBUTARY DRAINAGE AREA
- TEMPORARY SEDIMENT TRAP
- COMPOST FILTER SOCKS OR APPROVED EQUAL EROSION CONTROL MEASURE
- CONSTRUCTION ENTRANCE (RI STD 9.9.0)

Construction Phasing

Phase IA– INSTALL EROSION CONTROL SILT FENCE & STONE CONSTRUCTION ENTRANCE.

Phase IB – INSTALL TEMPORARY SEDIMENTATION TRAPS.

Phase IC– CONSTRUCT PROPOSED DIVERSIONS

Phase IIA– CLEAR AND GRUB CONSTRUCTION AREAS. CONSTRUCT PROPOSED BUILDING AND PAVEMENT AREAS & INSTALL UTILITIES. INSTALL DRAINAGE & SEWER NETWORKS WORKING FROM THE DOWN GRADIENT END UP TO THE START OF NETWORKS.

Phase IIB– STABILIZE ALL DISTURBED AREAS, DE-CONSTRUCT DIVERSIONS AND TEMPORARY SEDIMENTATION TRAPS.

Phase III– MAINTAIN & RE-INSTALL EROSION & SEDIMENT CONTROLS AT ALL DOWN GRADIENT LIMITS OF WORK.

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14	2-8-2017	Response to DEM Comments	KJD
13	11-29-2016	Response to NGRID Comments	KJD
12	11-16-2016	Response to NGRID Comments	KJD
11	10-14-2016	Response to NGRID Comments	KJD
10	9-15-2016	Response to NGRID Comments	KJD
9	9-7-2016	Response to NGRID Comments	KJD
8	8-29-2016	Response to Town Comments	JAR
7	7-28-2016	Response to Town Comments	JAR
6	7-19-2016	Response to Comments	ACA
5	6-29-2016	Response to DEM & CRMC Comments	KJD

Drawn By: ACA | Design By: MT

Soil Erosion & Sediment Control Plan

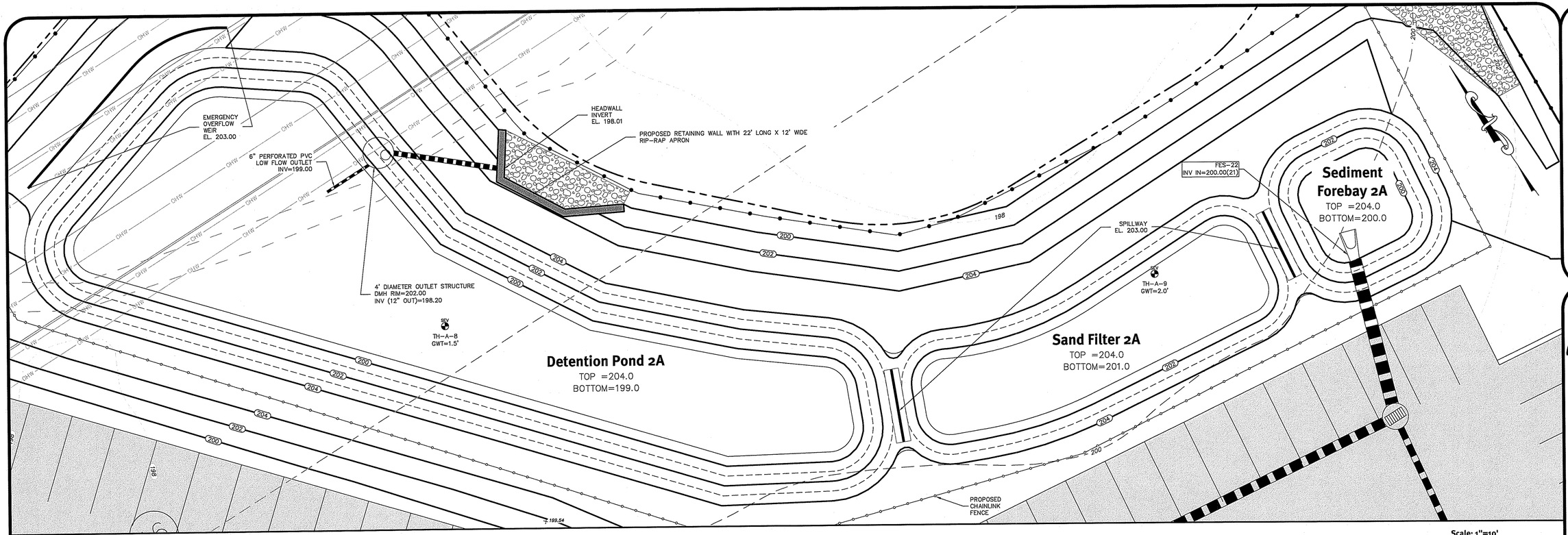
Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878

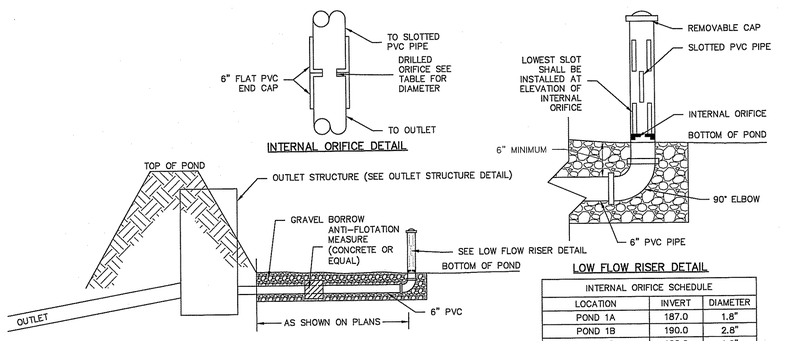
Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

DE Job No: 0000-XXX

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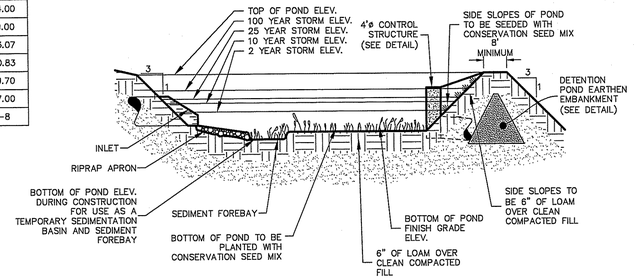
Detention Pond 2A



INTERNAL ORIFICE SCHEDULE		
LOCATION	INVERT	DIAMETER
POND 1A	187.0	1.8"
POND 1B	190.0	2.8"
POND 1D	188.0	1.2"
POND 2A	199.0	2.0"

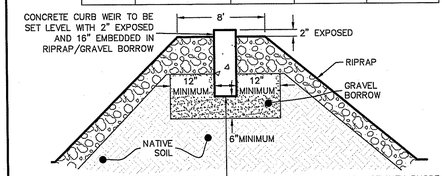
Low Flow (CPv) Outlet
NOT TO SCALE

DESCRIPTION	POND 2A
TOP OF POND ELEVATION	204.00
BOTTOM OF POND	199.00
100 YEAR STORM ELEVATION	203.07
10 YEAR STORM ELEVATION	200.83
1 YEAR STORM ELEVATION	199.70
SEASONAL HIGH GWT ELEVATION	197.00
SOIL EVALUATION	A-B



Detention Pond Typical Cross Section
NOT TO SCALE

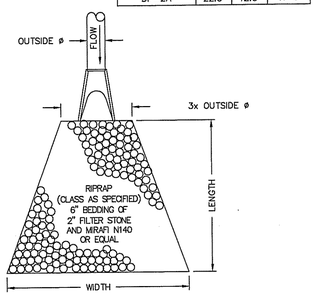
LOCATION	TOP OF POND ELEV.	WEIR INVERT	WEIR DEPTH	WEIR LENGTH
FBAY-1B	195.00	194.00	1.0	10'
SF-1B	195.00	194.75	0.25	20'
FB-1C	195.00	194.00	1.0	10'
SF-1C	195.00	194.00	1.0	10'
FBAY-2A	204.00	203.00	1.0	10'
SF-2A	204.00	203.00	1.0	10'
DP-2A	204.00	203.00	1.0	50'



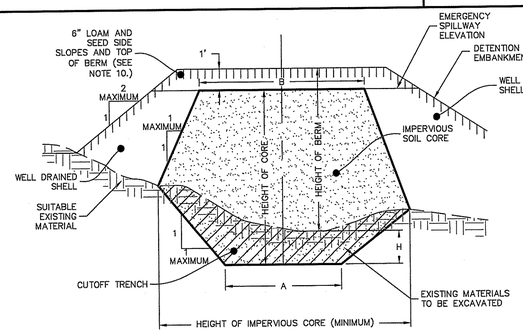
CONCRETE CURB TO BE SET ON GRAVEL BORROW SUBBASE IN ACCORDANCE WITH RHODE ISLAND STATE STANDARD SPECIFICATIONS. GRAVEL BORROW TO EXTEND MINIMUM 6" BELOW EXISTING TOP/SUBSOIL. ALL BACKFILL SHALL BE FREE FROM ORGANIC MATERIALS. ALL MATERIAL PLACED BELOW CURBING SHALL BE COMPACTED TO 95% DENSITY.

Curb Outlet Weir Cross Section
NOT TO SCALE

FLARED END	LENGTH	WIDTH	CLASS
DP-1B	21.0'	13.0'	R-3
DP-2A	22.0'	12.0'	R-4



Riprap Apron/ FE Detail
NOT TO SCALE

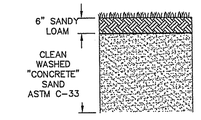


BERM HEIGHT (FT)	TOP WIDTH OF CORE - B (FT)
0-6.5	8.2
6.6-9.8	9.2
9.9-13.1	9.8
13.2-16.4	10.8
16.5-19.7	11.5

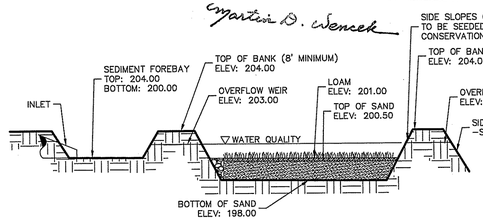
NOTES:
1. IMPERVIOUS SOIL CORE TO BE PROVIDED FOR ALL DETENTION POND EMBANKMENTS.
2. IMPERVIOUS SOIL CORE TO BE CONSTRUCTED OF MATERIAL CONSISTING OF SILT OR <200 SOIL.
3. WELL DRAINED SHELL TO BE CONSTRUCTED OF GRAVEL AND/OR SAND WITH LESS THAN 5% PASSING THE #200 SIEVE.
4. MINIMUM DEPTH OF CUTOFF TRENCH (H) SHALL BE 3/4 OF THE TOTAL BERM HEIGHT.
5. THE IMPERVIOUS CORE AT A MINIMUM SHALL EXTEND UP BOTH ABUTMENTS TO THE EMERGENCY SPILLWAY ELEVATION.
6. THE MINIMUM BOTTOM WIDTH (A) SHALL BE 5'-8', AND WIDE ENOUGH TO PERMIT OPERATION OF COMPACTION EQUIPMENT.
7. SIDE SLOPES OF THE TRENCH SHALL BE NO STEEPER THAN 1:1.
8. IF BEDROCK IS ENCOUNTERED BELOW THE DAM THE CUT OFF TRENCH CAN BE REDUCED TO 1'x1' (AxH)
9. COMPACTION REQUIREMENTS FOR THE SHELL AND IMPERVIOUS CORE TO BE 95% OF THE MODIFIED PROCTOR PER ASTM D1557. ALL FILL TO BE PLACED IN LIFTS NOT EXCEEDING 12".
10. SIDE SLOPE OF DETENTION POND EMBANKMENT TO BE 2:1 MAXIMUM. IF SIDE SLOPES ARE STEEPER THAN 3:1, SLOPE PROTECTION MUST BE UTILIZED ON POND EMBANKMENT. THIS INCLUDES, BUT NOT LIMITED TO, RIPRAP AND EROSION CONTROL MATS.
11. THE IMPERVIOUS CORE SHALL BE KEPT FREE FROM STANDING WATER DURING THE BACKFILL OPERATION.
12. ALL EMBANKMENTS TO BE DESIGNED BY A GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION. ALL EMBANKMENT INSTALLATIONS TO BE SUPERVISED BY A GEOTECHNICAL ENGINEER.

Detention Pond Earthen Embankment
NOT TO SCALE

DESCRIPTION	SF-2A
AVAILABLE STORAGE ELEVATION	204.00
100 YEAR STORM ELEVATION	203.73
10 YEAR STORM ELEVATION	203.43
1 YEAR STORM ELEVATION	203.08
OUTLET ELEVATION	203.00
TOP OF GRASS	201.00
SAND & LOAM DEPTH	3.0
BOTTOM OF SAND LAYER	198.00
SEASONAL HIGH GWT ELEVATION	198.00
SOIL EVALUATION	16-14



TYPICAL SECTION



Sand Filter (Infiltration)
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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Martin D. Wencek

FEB 21 2017

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14	11-29-2016	Response to NHDD Comments	K.M.D.
13	11-14-2016	Response to NHDD Comments	K.M.D.
12	10-26-2016	Response to RIDOT Comments	K.M.D.
11	9-15-2016	Response to NHDD Comments	K.M.D.
10	9-7-2016	Response to RIDOT Comments	K.M.D.
9	8-2-2016	Response to NHDD Comments	K.M.D.
8	7-28-2016	Response to Own Comments	J.A.K.
7	7-20-2016	Response to DEM Comments	K.M.D.
6	5-4-2016	Response to Own Comments	J.A.K.

Design By: MT
Drawn By: ACA

Details - 1

Longplex Sports & Family Complex

Assessor's Plat 10/1 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
In Tiverton, Rhode Island 02878

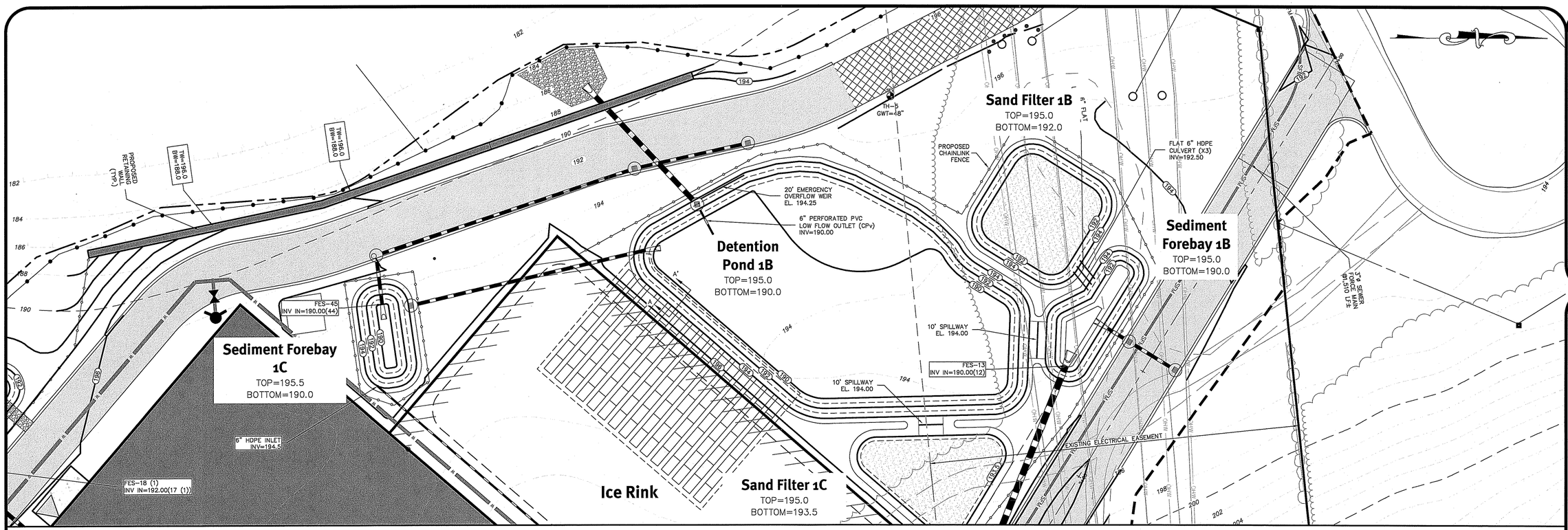
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DE Job Nos: 0000-XXXX

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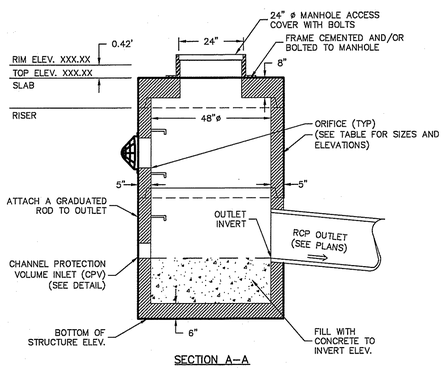
SHEET 9 OF 17

z:\deseln\projects\18895-001 tiverton industrial park\autocad drawing\18895-001-h02-desn.dwg Plotted: 2/15/2017



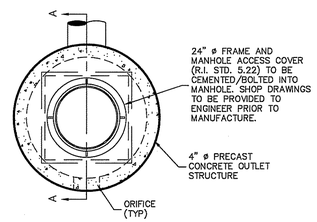
Detention Pond 1B

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



SECTION A–A

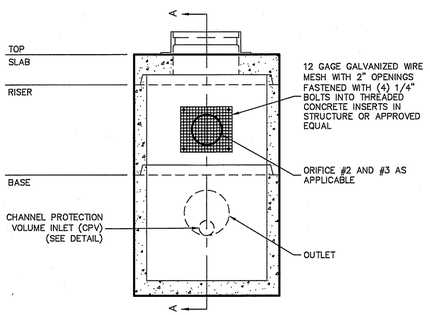
	POND 1A	POND 1B	POND 1D	POND 2A
ORIFICE #1	8"(x4), 190.30	1"(x2), 190.95	5"(x2), 190.60	6"(x2), 199.85
ORIFICE #2	---	---	---	6"(x2), 200.35
ORIFICE #3	---	---	---	4"(x2), 200.75
OUTLET	18", 187.00	18", 189.15	18", 187.00	12", 198.20
OPENING,RIM	24", 191.75	18", 193.00	18", 191.50	RIM=202.00 (NO OPENING)



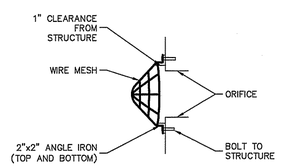
TOP VIEW

4' Diameter Outlet Structure

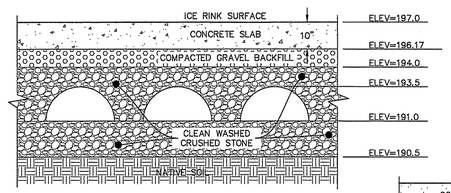
NOT TO SCALE



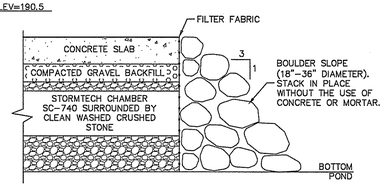
NOTE:
ALL 2" WEEP HOLES USED TO PLACE STRUCTURE MUST BE FILLED WITH CONCRETE.



TRASH RACK DETAIL



SECTION A–A

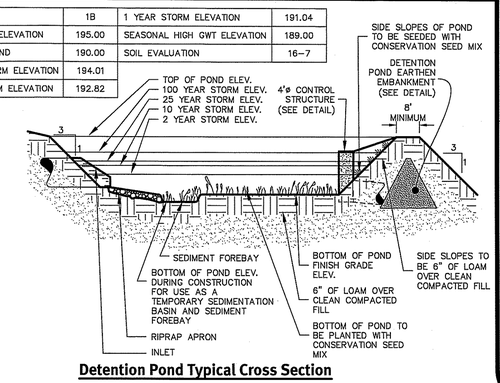


SECTION B–B

Proposed Stormtech System Sections

NOT TO SCALE

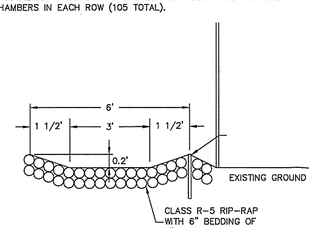
DESCRIPTION	1B	1 YEAR STORM ELEVATION	191.04
TOP OF POND ELEVATION	195.00	SEASONAL HIGH GWT ELEVATION	189.00
BOTTOM OF POND	190.00	SOIL EVALUATION	16–7
100 YEAR STORM ELEVATION	194.01		
10 YEAR STORM ELEVATION	192.82		



Detention Pond Typical Cross Section

NOT TO SCALE

NOTE:
1. A TOTAL OF 15 ROWS OF STORMTECH CHAMBERS ARE PROPOSED WITH 7 STORMTECH CHAMBERS IN EACH ROW (105 TOTAL).



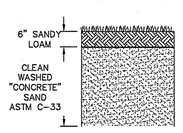
NOTE:
* LENGTHS AS SPECIFIED ON SITE PLANS

Level Spreader

NOT TO SCALE

DESCRIPTION	SF–1B	SF–1C
AVAILABLE STORAGE ELEVATION	195.00	195.00
100 YEAR STORM ELEVATION	194.76	194.28
10 YEAR STORM ELEVATION	194.53	194.20
1 YEAR STORM ELEVATION	194.17	194.09
OUTLET ELEVATION	194.75	194.00
TOP OF GRASS	192.00	193.50
SAND & LOAM DEPTH	2.5	3.0
BOTTOM OF SAND LAYER	189.00	190.50
SEASONAL HIGH GWT ELEVATION	189.00	190.50*
SOIL EVALUATION	A–7	A–5

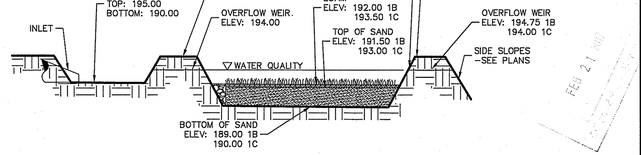
*LEDGE ELEVATION



TYPICAL SECTION

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Cynthia D. Wenceck



Sand Filter (Infiltration)

NOT TO SCALE

FEB 21 2017

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The contractor is responsible for all of the means, methods, safety precautions and requirements and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By
14.	2-8-2017	Response to DEM Comments	K.D.
13.	12-29-2016	Response to Sewer Comments	K.D.
12.	12-20-2016	Response to Water Comments	K.D.
11.	11-14-2016	Response to NGRID Comments	K.D.
10.	10-17-2016	Site Modifications	K.D.
9.	9-27-2016	Response to DEM Comments	K.D.
8.	9-7-2016	Response to NGRID Comments	K.D.
7.	8-26-2016	Response to DEM Comments	K.D.
6.	7-29-2016	Response to Sewer Comments	A.C.
5.	7-19-2016	Response to Comments	K.D.
4.	7-1-2016	Shift of Impervious Cover	K.D.

Drawn By: ACA Design By: MT

KEVIN DEMERS
No. 18567
REGISTERED PROFESSIONAL ENGINEER
CIVIL

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

Details - 2

Longplex Sports & Family Complex

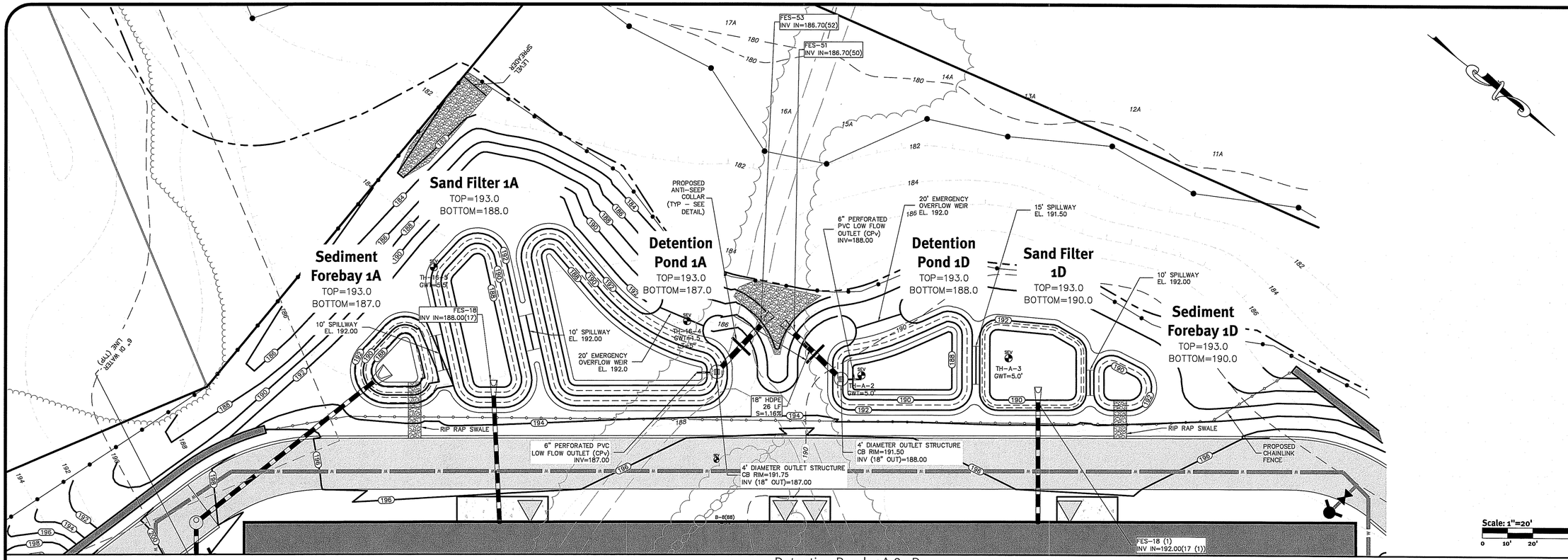
Assessor's Plat 107 Lots 805, 866, 807, 808, 809, 810 and Part Lots 803 & 816
Johnston, Rhode Island 02919

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

DE Job No: 0XXX-XXX Copyright 2017 by DiPrete Engineering Associates, Inc.

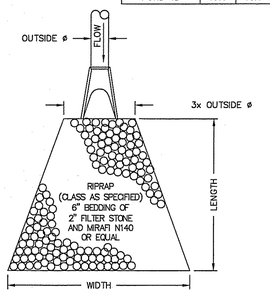
SHEET 10 OF 17

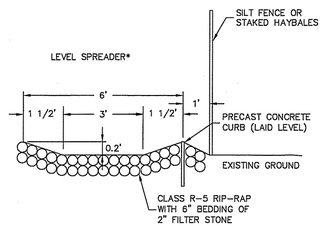
z:\domain\projects\1895-001 tiverton industrial park\autocad drawings\1895-001-h02-dsen.dwg Plotted: 2/15/2017



Detention Ponds 1A & 1D

FLARED END	LENGTH	WIDTH	CLASS
POND 1A	25.0	15.0	R-4
POND 1D	19.0	13.0	R-3

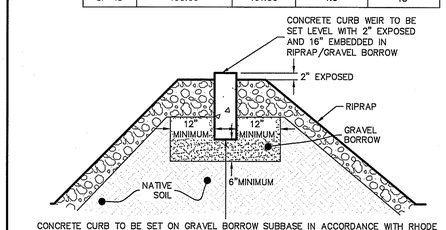




NOTE:
* LENGTHS AS SPECIFIED ON SITE PLANS

Level Spreader
NOT TO SCALE

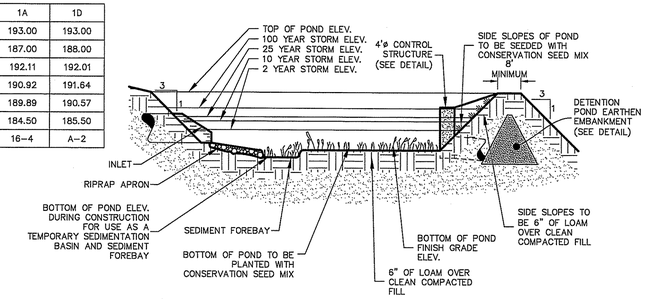
LOCATION	TOP OF POND ELEV.	WEIR INVERT	WEIR DEPTH	WEIR LENGTH
FBAY-1A	193.00	192.00	1.0	10'
SF-1A	193.00	192.00	1.0	10'
FBAY-1D	193.00	192.00	1.0	10'
SF-1D	193.00	191.50	1.5	15'



CONCRETE CURB TO BE SET ON GRAVEL BORROW SUBBASE IN ACCORDANCE WITH RHODE ISLAND STATE STANDARD SPECIFICATIONS. GRAVEL BORROW TO EXTEND MINIMUM 6" BELOW EXISTING TOP/SUBSOIL. ALL BACKFILL SHALL BE FREE FROM ORGANIC MATERIALS. ALL MATERIAL PLACED BELOW CURBING SHALL BE COMPACTED TO 95% DENSITY.

Curb Outlet Weir Cross Section
NOT TO SCALE

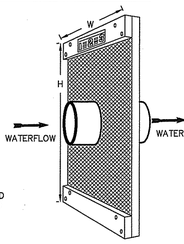
DESCRIPTION	1A	1D
TOP OF POND ELEVATION	193.00	193.00
BOTTOM OF POND	187.00	188.00
100 YEAR STORM ELEVATION	192.11	192.01
10 YEAR STORM ELEVATION	190.92	191.64
1 YEAR STORM ELEVATION	189.89	190.57
SEASONAL HIGH GWT ELEVATION	184.50	185.50
SOIL EVALUATION	16-4	A-2



Detention Pond Typical Cross Section
NOT TO SCALE

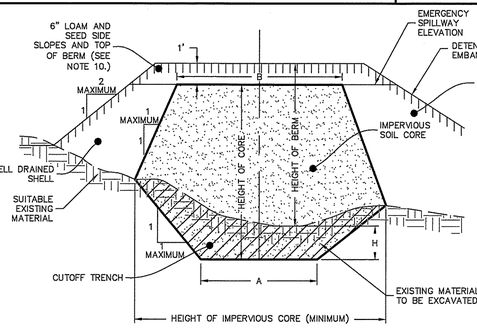
LOCATION	WIDTH	HEIGHT	QUANTITY
DETENTION POND 1A	4.00	3.00	1
DETENTION POND 1D	3.00	3.00	1
DETENTION POND 1B	3.00	3.00	1
DETENTION POND 2A	3.00	3.00	1

INSTALLATION NOTES:
1. UNROLL THE ANTI-SEEP AND ATTACH THE BOARDS TO THE EDGES TO FORM A SQUARE. (USE THE BOARDS AND NAILS PROVIDED.)(4'X4' AND LARGER)
2. CUT A ROUND HOLE IN THE CENTER OF THE RUBBER THAT IS SMALLER THAN THE PIPE SIZE (APPROX. 25% SMALLER). THIS WILL ALLOW THE RUBBER TO STRETCH OVER THE PIPE WHEN THE ANTI-SEEP IS INSTALLED ON THE PIPE. THIS SHOULD PROVIDE A NEARLY WATERPROOF SEAL BETWEEN THE PIPE AND THE ANTI-SEEP.
3. SLIP THE PIPE THROUGH THE ANTI-SEEP. INSPECT THE SEAL BETWEEN THE PIPE AND THE ANTI-SEEP, CAREFULLY BACKFILL AND COMPACT WITH SUITABLE SOIL.



NOTE:
AGRI DRAIN CORP. OR EQUAL

Anti-Seep Collar
NOT TO SCALE

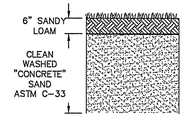


BERM HEIGHT (FT)	TOP WIDTH OF CORE - B (FT)
0-6.5	8.2
6.6-9.8	9.2
9.9-13.1	9.8
13.2-16.4	10.8
16.5-19.7	11.5

NOTES:
1. IMPERVIOUS SOIL CORE TO BE PROVIDED FOR ALL DETENTION POND EMBANKMENTS.
2. IMPERVIOUS SOIL CORE TO BE CONSTRUCTED OF MATERIAL CONSISTING OF SILT OR <200 SOIL.
3. WELL DRAINED SHELL TO BE CONSTRUCTED OF GRAVEL AND/OR SAND WITH LESS THAN 5% PASSING THE #200 SIEVE.
4. MINIMUM DEPTH OF CUTOFF TRENCH (H) SHALL BE 3/4 OF THE TOTAL BERM HEIGHT.
5. THE IMPERVIOUS CORE AT A MINIMUM SHALL EXTEND UP BOTH ABUTMENTS TO THE EMERGENCY SPILLWAY ELEVATION.
6. THE MINIMUM BOTTOM WIDTH (A) SHALL BE 5'-8", AND WIDE ENOUGH TO PERMIT OPERATION OF COMPACTION EQUIPMENT.
7. SIDE SLOPES OF THE TRENCH SHALL BE NO STEEPER THAN 1:1.
8. IF BEDROCK IS ENCOUNTERED BELOW THE DAM THE CUT OFF TRENCH CAN BE REDUCED TO 1'x1' (AxH)
9. COMPACTION REQUIREMENTS FOR THE SHELL AND IMPERVIOUS CORE TO BE 95% OF THE MODIFIED PROCTOR PER ASTM D1557. ALL FILL TO BE PLACED IN LIFTS NOT EXCEEDING 12".
10. SIDE SLOPE OF DETENTION POND EMBANKMENT TO BE 2:1 MAXIMUM. IF SIDE SLOPES ARE STEEPER THAN 3:1, SLOPE PROTECTION MUST BE UTILIZED ON POND EMBANKMENT. THIS INCLUDES, BUT NOT LIMITED TO, RIPRAP AND EROSION CONTROL MATS.
11. THE IMPERVIOUS CORE SHALL BE KEPT FREE FROM STANDING WATER DURING THE BACKFILL OPERATION.
12. ALL EMBANKMENTS TO BE DESIGNED BY A GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION. ALL EMBANKMENT INSTALLATIONS TO BE SUPERVISED BY A GEOTECHNICAL ENGINEER.

Detention Pond Earthen Embankment
NOT TO SCALE

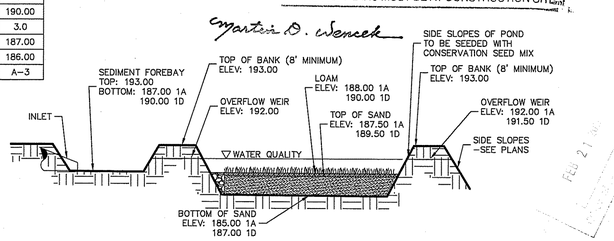
DESCRIPTION	SF-1A	SF-1D
AVAILABLE STORAGE ELEVATION	193.00	193.00
100 YEAR STORM ELEVATION	192.64	192.06
10 YEAR STORM ELEVATION	192.41	191.71
1 YEAR STORM ELEVATION	192.18	191.64
OUTLET ELEVATION	192.00	191.50
TOP OF GRASS	188.00	190.00
SAND & LOAM DEPTH	3.0	3.0
BOTTOM OF SAND LAYER	185.00	187.00
SEASONAL HIGH GWT ELEVATION	179.00	186.00
SOIL EVALUATION	16-5	A-3



TYPICAL SECTION

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 24 2017 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Jeanette D. Wenck



Sand Filter (Infiltration)
NOT TO SCALE

FEB 21 2017

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

KEVIN DEMERS
No. 8557
REGISTERED PROFESSIONAL ENGINEER CIVIL

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No.	Date	Description	By:
A	2-8-2017	Response to DEM Comments	K.J.D.
13	10-28-2016	Response to Sewer Comments	K.J.D.
12	10-26-2016	Response to Sewer Comments	K.J.D.
11	10-14-2016	Response to NGRID Comments	K.J.D.
10	9-15-2016	Site Modification Comments	K.J.D.
9	9-7-2016	Response to NGRID Comments	K.J.D.
8	8-2-2016	Response to Town Comments	K.J.D.
7	7-28-2016	Response to Town Comments	J.A.R.
6	7-26-2016	Response to Comments	K.J.D.
5	7-19-2016	Response to Comments	K.J.D.
4	7-5-2016	Response to Comments	K.J.D.

Design By: MT
Drawn By: ACA

Details - 3

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 809 & 816
in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
795 Aquidneck Avenue, Middletown Rhode Island 02842

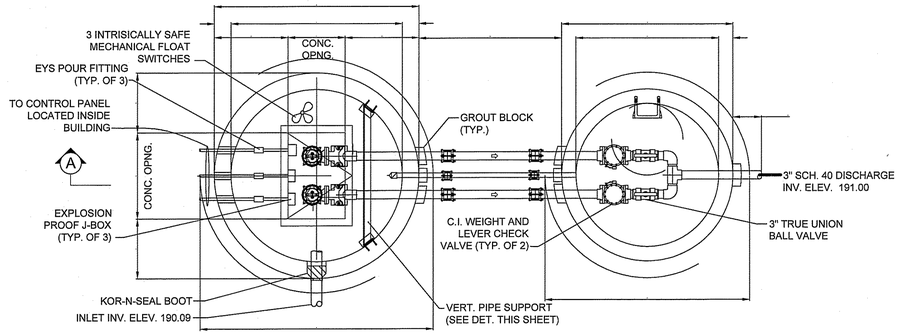
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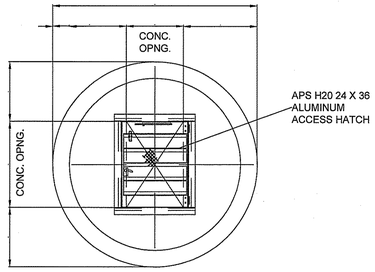
SHEET 11 OF 17

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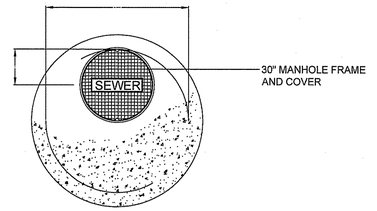
PRELIMINARY DRAWING BOYDCO 603A3SV



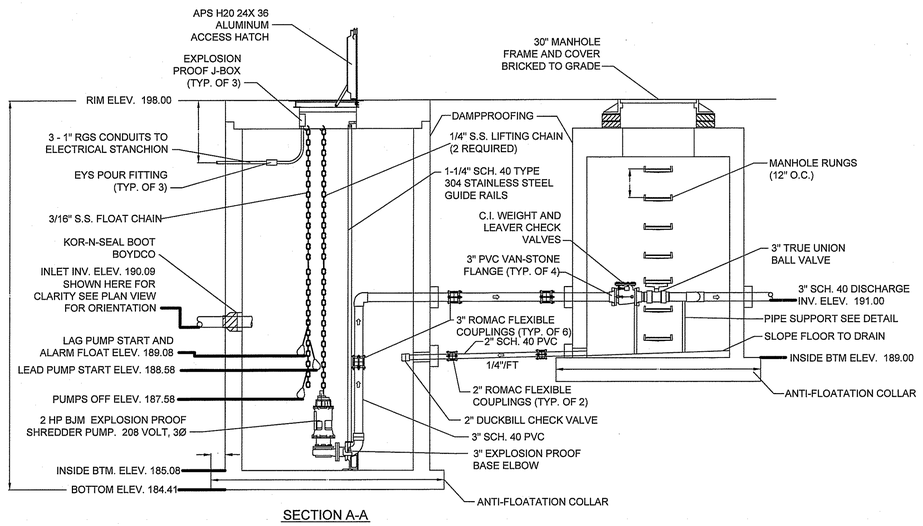
PLAN VIEW



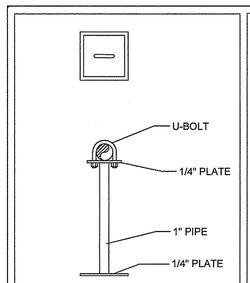
PLAN VIEW
@ ACCESS HATCH



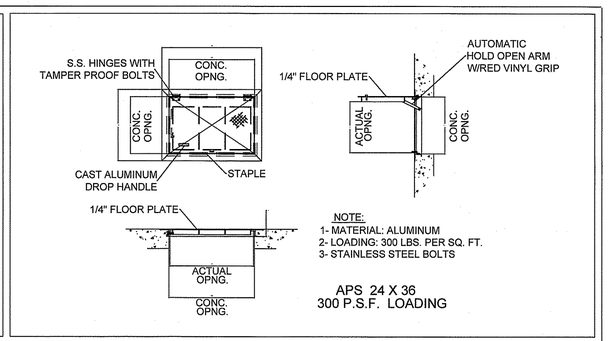
PLAN VIEW AT VALVE
CHAMBER TOP SLAB



SECTION A-A

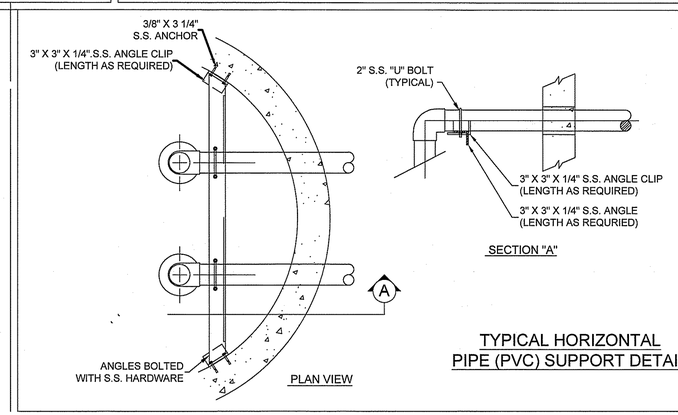


3" S.S. PIPE SUPPORT



NOTE:
1- MATERIAL: ALUMINUM
2- LOADING: 300 LBS. PER SQ. FT.
3- STAINLESS STEEL BOLTS

APS 24 X 36
300 P.S.F. LOADING



PLAN VIEW

SECTION "A"

TYPICAL HORIZONTAL
PIPE (PVC) SUPPORT DETAIL

ELEVATION KEY FOR WET WELL AND VALVE VAULT

RIM ELEV. 198.00

GRADE ELEV. 198.00

INLET INV. ELEV. 190.09

DISCHARGE ELEV. 191.00

WET WEL INSIDE FLOOR ELEV. 185.08

VALVE PIT INSIDE FLOOR ELEV. 189.00

PUMP(S) OFF FLOAT ELEV. 187.58

LEAD PUMP ON ELEV. 188.58

HIGH WATER ALARM ELEV. 189.08

LAG PUMP ON ELEV. 189.08

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Martin D. Wencek

REVISIONS

BOYDCO
101 COMMERCIAL WAY
EAST PROVIDENCE, RI 02914

JOB TITLE:

SHEET DESCRIPTION:
PUMP STATION PLANS, ELEVATIONS & DETAILS

DRAWN BY:	APPROVED BY:	SCALE:
CB		NONE
DATE: 10/5/16		DRAWING NO: 41021

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

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No.	Date	Description	By:
1	7-19-2016	Response to Comments	K.A.
2	7-26-2016	Response to DEM Comments	K.A.
3	8-2-2016	Response to Comments	K.A.
4	9-7-2016	Response to NGRID Comments	K.D.
5	10-11-2016	Site Modifications	K.D.
6	11-14-2016	Response to NGRID Comments	K.D.
7	11-30-2016	Response to DEM Comments	K.D.
8	12-9-2016	Response to Comments	K.D.
9	1-13-2017	Response to DEM Comments	K.D.
10	2-28-2017	Response to DEM Comments	K.D.
11	3-23-2017	Response to DEM Comments	K.D.
12	4-21-2017	Response to DEM Comments	K.D.

Drawn By: ACA | Design By: MT

Details - 4

Longplex Sports & Family Complex

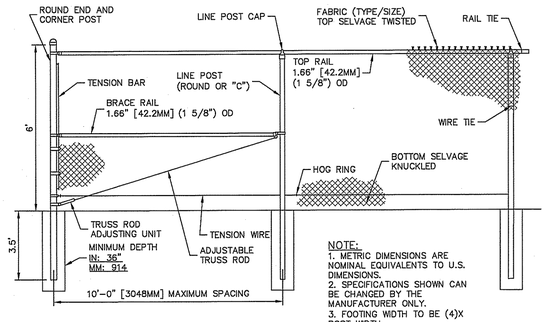
Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816 in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
795 Aquidneck Avenue, Middletown Rhode Island 02842

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SHEET 12 OF 17

z:\domain\project\1895-001 tiverton industrial park\autocad drawings\1895-001-dist.dwg Plotted: 2/15/2017



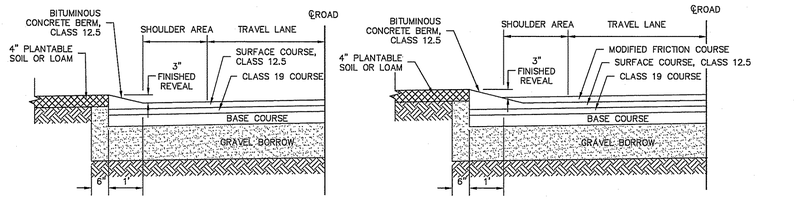
NOTE:
1. METRIC DIMENSIONS ARE NOMINAL EQUIVALENTS TO U.S. DIMENSIONS.
2. SPECIFICATIONS SHOWN CAN BE CHANGED BY THE MANUFACTURER ONLY.
3. FOOTING WIDTH TO BE (4)X POST WIDTH.

Typical Fence Section

NOT TO SCALE

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. 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



CONSTRUCTION METHOD A

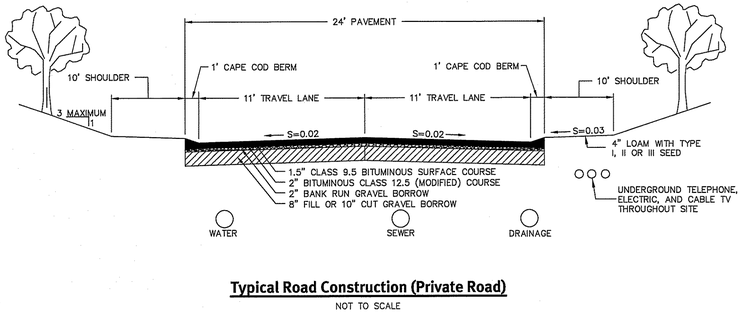
CONSTRUCTION METHOD B

Bituminous Berm

NOT TO SCALE

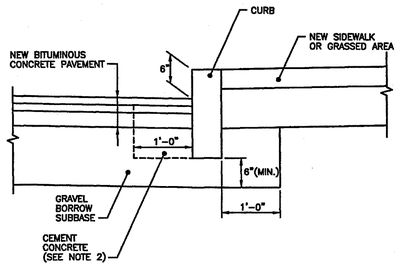
NOTE: BERM SHALL MEET H20 HIGHWAY LOADING

NOTE:
THIS PAVEMENT SECTION DETAIL REFLECTS MINIMUM REQUIREMENTS. ENGINEER TO DETERMINE DESIGN BASED ON GEOTECHNICAL DATA OF SPECIFIC PROJECT AND DAILY TRAFFIC DESIGN REQUIREMENT.



Typical Pavement Section

NOT TO SCALE



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. CEMENT CONCRETE SHALL BE USED ONLY WHEN THE CURB IS SET AFTER THE BASE AND/OR BINDER COURSES ARE IN PLACE, OTHERWISE THE CEMENT CONCRETE WILL BE ELIMINATED AND THE GRAVEL BROUGHT UP TO BOTTOM OF THE BASE COURSE.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

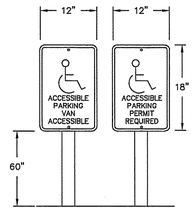
CURB SETTING DETAIL

JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 7.6.0

Curb Setting Detail

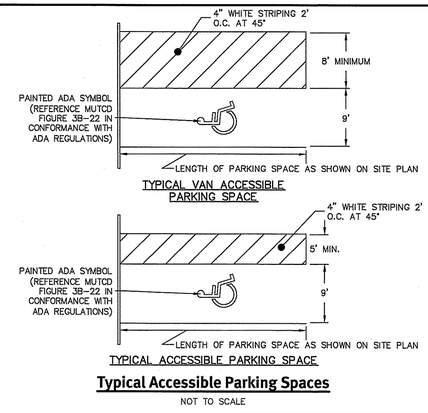
NOT TO SCALE



NOTES:
1. SIGN SHALL BE PLACED BEHIND APPLICABLE VAN ACCESSIBLE OR ACCESSIBLE SPACE AS SHOWN ON SIGNAGE PLAN.
2. ACCESSIBLE PARKING SPACES AND SIGNAGE SHALL COMPLY WITH LATEST VERSION OF THE ADA STANDARDS FOR ACCESSIBLE DESIGN OR THE RI BUILDING CODE, WHICHEVER STANDARD CONTROLS.

Typical Accessible Parking Post & Sign

NOT TO SCALE

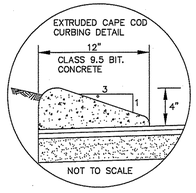


Typical Accessible Parking Spaces

NOT TO SCALE

GENERAL NOTES:
1. ROADWAY CROSS SECTION AND MATERIALS SHALL CONFORM TO TOWN/CITY STANDARDS FOR ROAD CONSTRUCTION AND UTILITY LOCATIONS.
2. CAPE COD CURBING HALL MANUFACTURING CO. MOLD JEX OR D.P.W. APPROVED EQUAL, SLOPE FACED PRECAST CONCRETE CURBING REQUIRED AT ALL INTERSECTION FILLET CURVES. SEE RIDOT STD. 7.2.0.
3. WATER MAIN LOCATION SUBJECT TO APPROVAL OF THE DIRECTOR OF PUBLIC WORKS.
4. STORM DRAIN MATERIALS AND METHODS SHALL CONFORM TO APPLICABLE TOWN OF TIVERTON AND RIDOT STANDARDS.
5. FIRE ALARMS ARE REQUIRED AND SHALL BE INSTALLED ACCORDING TO TOWN FIRE DEPARTMENT REQUIREMENTS.
6. UNDERGROUND UTILITY TRENCH CONSTRUCTION TO CONFORM TO THE NATIONAL GRID "DEVELOPER/CONTRACTOR/CUSTOMER RESPONSIBILITIES AND CONSTRUCTION SPECIFICATIONS FOR UNDERGROUND RESIDENTIAL DEVELOPMENTS"
7. SEWER FORCE MAIN SEPARATION TO WATER MAIN: 10' HORIZONTAL OR 2' VERTICAL BELOW WATER MAIN.

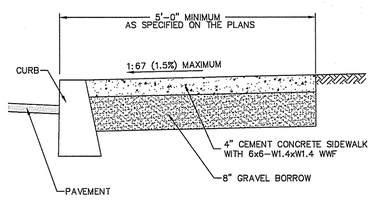
CONSTRUCTION NOTES:
1. CLEARING AND GRUBBING: ALL ROOT SYSTEMS, TREES, STUMPS, BUSHES, AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED AND DISPOSED OF AS INDICATED BY THE MUNICIPAL ENGINEER. HEALTHY TREES WITHIN THE RIGHTS-OF-WAY WIDTH AND OUTSIDE THE PAVEMENT WIDTH MAY BE LEFT STANDING, PROVIDED SAID TREES ARE NOT MORE THAN 5' FROM THE RIGHT-OF-WAY LINE, EXCEPT WHERE SIDEWALKS ARE REQUIRED.
2. EARTH EXCAVATIONS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE REMOVAL OF CLAY, SAND, GRAVEL, LOAM, SOFT OR DISINTEGRATED ROCK WHICH CAN BE REMOVED WITHOUT BLASTING; BOULDERS OF LESS THAN 1/2 CUBIC YARD IN VOLUME; AND, OTHER UNACCEPTABLE MATERIALS WITHIN THE LIMITS OF ROADWAY, DRAINAGE, OR OTHER EXCAVATION.
3. ROCK AND LEDGE EXCAVATION SHALL INCLUDE REMOVAL AND DISPOSAL OF ALL BOULDERS OF 1/2 CUBIC YARD OR MORE IN VOLUME AND ALL HARD LEDGE ROCK WHICH CAN BE REMOVED ONLY BY DRILLING AND SPLITTING MECHANICALLY BY HAND OR BLASTING
4. WHERE GROUND WATER IS ENCOUNTERED WITHIN 5' OF FINISHED GRADE AS DETERMINED BY RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, "GROUND WATER PROCEDURES", DURING THE WET SEASON, ADEQUATE SUBSURFACE DRAINAGE SHALL BE CONSTRUCTED TO LOWER THE GROUND WATER LEVEL TO A DEPTH OF AT LEAST 5' BELOW FINISHED GRADE.
5. PAVEMENT SHALL BE CONSTRUCTED SO AS TO PROVIDE A MINIMUM CROSS SECTION AFTER COMPACTION OF 8" GRAVEL BORROW BASE COURSE SUBBASE IN FILL AND 10" GRAVEL BORROW BASE COURSE IN CUTS WITH 2" OF CRUSHED BANK RUN GRAVEL BORROW (MEETING TOWN SPECIFICATIONS) AND HOT-MIX ASPHALTIC AND BITUMINOUS CONCRETE MATERIALS CONFORMING TO R.I. STANDARD SPECIFICATIONS.



Typical Road Construction (Private Road)

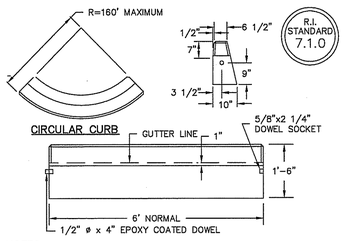
NOT TO SCALE

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. FOR CURB SETTING DETAIL REFERENCE STD. 7.6.0.
3. MEETS OR EXCEEDS GUIDELINES OF RIDOT STANDARD DETAIL 43.1.0.



Cement Concrete Sidewalk

NOT TO SCALE



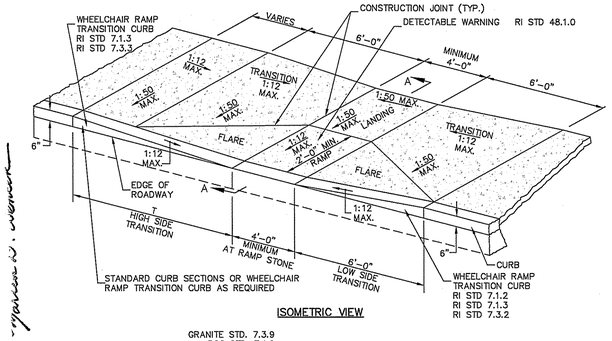
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0".
3. EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
4. CIRCULAR CURB IS REQUIRED ON CURVES WITH RADII OF 160'-0" OR LESS. STRAIGHT CURB TO BE USED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

Precast Concrete Curb

NOT TO SCALE

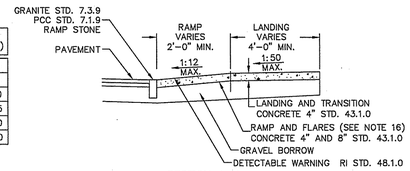
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 24 2017 FILE # 16-0176
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

MAR 24 2017



ISOMETRIC VIEW

ROADWAY PROFILE GRADE	T (FT.)
0.00	7.5
0.01	9.0
0.02	11.0
0.03	13.5
0.04	19.0
0.05	30.0



SECTION A-A

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. 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.
3. 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.
4. DRAINAGE FACILITIES ARE TO BE LOCATED UP-GRADE OF ALL WHEELCHAIR RAMPS.
5. LOCATION OF WHEELCHAIR RAMPS IS AS SHOWN ON CONTRACT DRAWINGS.
6. IN NO INSTANCE SHALL THE SIDEWALK CROSS SLOPE EXCEED 1:50 EXCEPT WITHIN THE RAMP AREA.
7. AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 4'-0" SHALL BE MAINTAINED.
8. 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.
9. WHERE THE ROAD PROFILE EXCEEDS 5% THE HIGH SIDE TRANSITION LENGTH (T) SHALL BE EIGHTEEN FEET (18'-0")
10. IN NO CASE, WHERE A STOP LINE IS WARRANTED, SHALL A RAMP BE PLACED BEHIND THE STOP LINE.
11. THE ENTRANCE OF THE WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
12. THE WHEELCHAIR RAMP SHALL BE CENTERED RADIALLY, OPPOSITE THE RADIUS POINT WHEN POSSIBLE.
13. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0" (GREATER LENGTHS PREFERRED).
14. ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
15. DETECTABLE WARNINGS TO BE PAID FOR UNDER SECTION 942 OF THE RI STANDARD SPECIFICATIONS.
16. 8" CONCRETE DEPTH FOR RADIUS WHEELCHAIR RAMPS ONLY. USE 4" DEPTH FOR TANGENT (MID-BLOCK) LOCATIONS.
17. MEETS OR EXCEEDS GUIDELINES OF RIDOT STANDARD DETAIL 43.3.0.

FEB 21 2017

Wheelchair Ramp (ADA)

NOT TO SCALE

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By
M	2-8-2017	Response to DSH Comments	K.I.D.
L1	11-29-2016	Response to Sewer Comments	K.I.D.
L	11-23-2016	Response to Sewer Comments	K.I.D.
11	11-14-2016	Response to WRB Comments	K.I.D.
10	10-31-2016	Site Modifications	K.I.D.
9	10-27-2016	Response to NHD Comments	K.I.D.
8	9-7-2016	Response to NHD Comments	K.I.D.
7	8-2-2016	Response to DSH Comments	K.I.D.
6	7-29-2016	Response to DSH Comments	K.I.D.
5	7-19-2016	Response to Comments	A.C.A.
4	6-21-2016	Response to Comments	A.C.A.
3	5-25-2016	Bidder RI Insource re: Comments	B.N.O.

Design By: MT
Drawn By: ACA

Details - 5

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

DE Job No: 0000-XXX

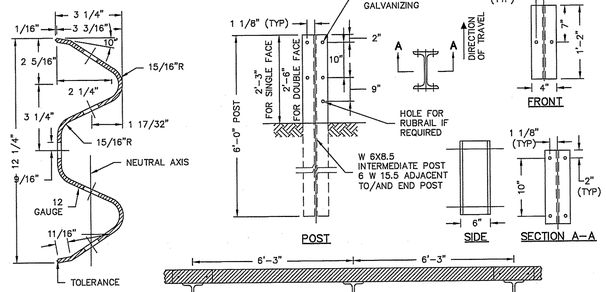
Copyright 2017 by DiPrete Engineering Associates, Inc.

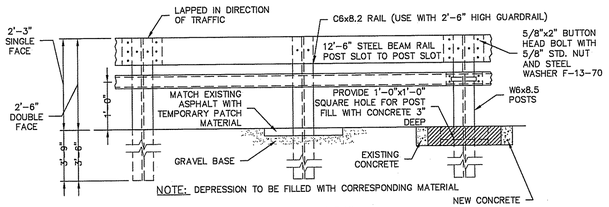
SHEET 13 OF 17

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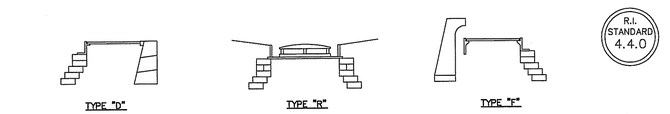
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 901 OF THE R.I. STANDARD SPECIFICATIONS.
2. POST AND OFFSET BRACKET TO BE FABRICATED FROM 6"X4" 8 1/2 LBS/FOOT STEEL "H" SECTIONS.
3. POST AND BRACKET BOLT HOLES TO BE OVAL UNLESS OTHERWISE SPECIFIED.
4. ALL HOLES IN OFFSET BRACKETS SHALL BE 13/16".

R.I. STANDARD 34.2.0





Steel Beam Guardrail
NOT TO SCALE



TYPE CATCH BASIN AS REQUIRED

R.I. STANDARD 4.4.0

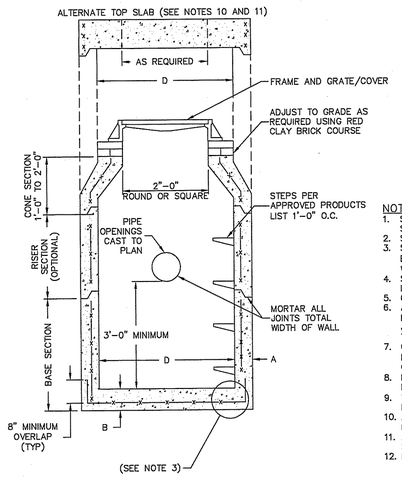
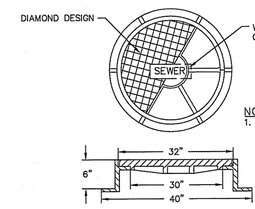


TABLE 1			
CATCH BASIN DIAMETER (D)	A	B	CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED*
4'-0"	5"	6"	0.12 SQ. IN./LIN. FT.
5'-0"	6"	7"	0.15 SQ. IN./LIN. FT.
6'-0"	7"	8"	0.18 SQ. IN./LIN. FT.

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

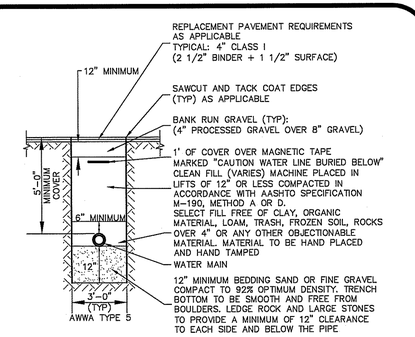
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. SEE TABLE 1 FOR STEEL REINFORCEMENT REQUIREMENTS.
3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQUARE INCH/LIN. FOOT (BOTH WAYS).
4. STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED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

Precast Round Catch Basin
NOT TO SCALE

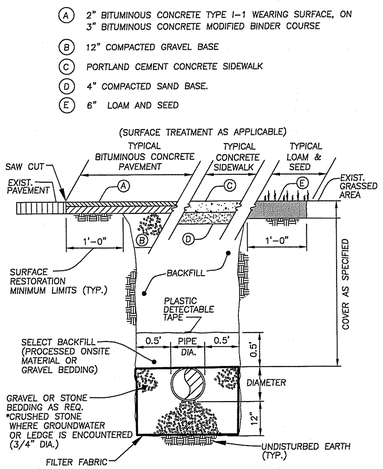


NOTE:
1. SEWER MANHOLE FRAME AND COVER SHALL BE LEBARON MODEL LC326-2 OR APPROVED EQUAL.

Water-Tight Sewer Manhole Frame & Cover Detail
NOT TO SCALE



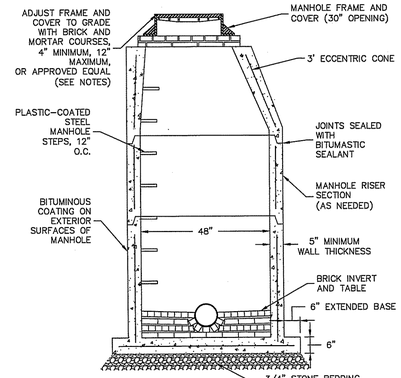
Water Trench Detail
NOT TO SCALE



A 2" BITUMINOUS CONCRETE TYPE I-1 WEARING SURFACE, ON 3" BITUMINOUS CONCRETE MODIFIED BINDER COURSE
B 12" COMPACTED GRAVEL BASE
C PORTLAND CEMENT CONCRETE SIDEWALK
D 4" COMPACTED SAND BASE.
E 6" LOAM AND SEED

Sewer Utility Trench
NOT TO SCALE

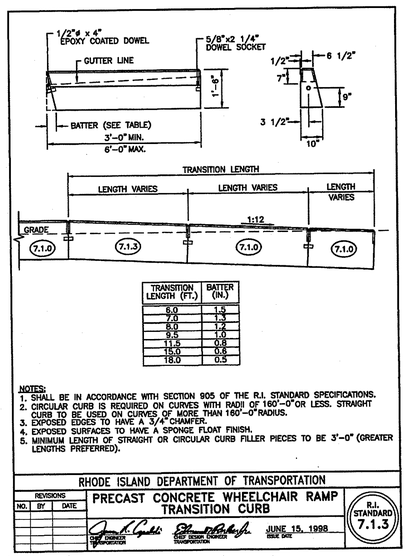
NOTES:
1. MANHOLE SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM-C478.
2. INVERT AND TABLE SHALL CONSIST ENTIRELY OF BRICK AND MORTAR. NO SAND FILLER SHALL BE ALLOWED.
3. MANHOLES SHALL BE VACUUM TESTED PRIOR TO ACCEPTANCE, IN ACCORDANCE WITH THE SEWER AUTHORITY SANITARY RULES AND REGULATIONS. UNDER NO CIRCUMSTANCES WILL EXFILTRATION TESTING BE ACCEPTED.
4. BOLTED AND GASKETED COVERS SHALL BE USED ON MANHOLES IN OFF-ROAD AREAS.
5. TAPPING OF MANHOLES MUST BE AUTHORIZED AND INSPECTED BY THE SEWER AUTHORITY. THE ONLY APPROVED METHOD FOR TAPPING MANHOLES SHALL BE BY CORE-DRILLING THE MANHOLE AND INSTALLING A "KOR-N-SEAL" BOOT.
6. PRECAST CONCRETE GRADE RINGS, HDPE GRADE RINGS, OR OTHER RIM ADJUSTMENT PRODUCTS MAY BE USED IN LIEU OF BRICK AND MORTAR WITH THE PERMISSION OF THE SEWER AUTHORITY.



Sewer Manhole
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 24 2017 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Martin D. Wencek



TRANSITION LENGTH (FT.)	BATTER (IN.)
6.0	1.5
7.0	1.3
8.0	1.2
9.5	1.0
11.5	0.8
15.0	0.6
18.0	0.5

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

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

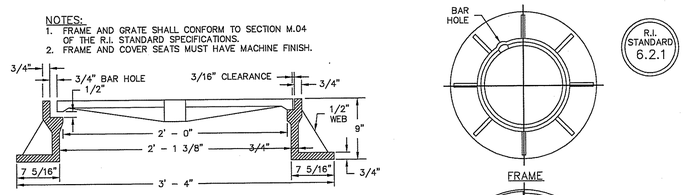
PRECAST CONCRETE WHEELCHAIR RAMP TRANSITION CURB

CHIEF ENGINEER, OPERATIONS — CHIEF DESIGN ENGINEER, TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

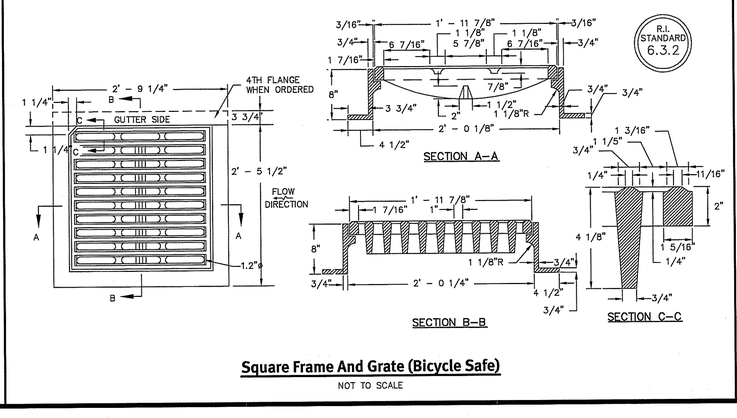
R.I. STANDARD 7.1.3

Square Frame And Grate
NOT TO SCALE

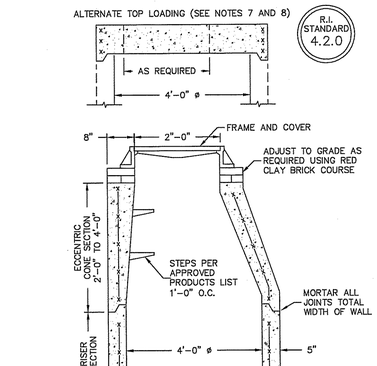
NOTES:
1. FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
2. FRAME AND COVER SEATS MUST HAVE MACHINE FINISH.



Heavy-Duty Round Frame and Cover
NOT TO SCALE

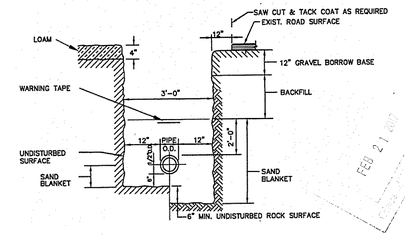


Square Frame And Grate (Bicycle Safe)
NOT TO SCALE



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

Precast 4'-0" Round Manhole
NOT TO SCALE



LOW PRESSURE SEWER TRENCH
NOT TO SCALE

FEB 21 2017

This regulatory submission set shall not be used for construction purposes unless stamped "Issued for Construction" and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
A	1-31-2017	Response to DEM Comments	K.I.D.
14	12-13-2016	Response to Sewer Comments	K.I.D.
13	11-17-2016	Response to Water Comments	K.I.D.
12	10-31-2016	Response to Fire Comments	K.I.D.
11	10-31-2016	Site Modifications	K.I.D.
10	10-31-2016	Response to Water Comments	K.I.D.
9	9-15-2016	Response to Sewer Comments	K.I.D.
8	8-2-2016	Response to Fire Comments	K.I.D.
7	7-28-2016	Response to Town Comments	A.C.K.
6	7-15-2016	Response to DEM Comments	K.I.D.
5	7-15-2016	RIDOT PD Response to Comments	K.I.D.
4	7-1-2016	Site Modifications	K.I.D.

Design By: MT
Drawn By: ACA

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

Details - 6

Longplex Sports & Family Complex
Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

DE Job No: 0000-XXX Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 14 OF 17

z:\deman\projects\1895-001 tiverton industrial park\autocad drawings\1895-001-dtst.dwg Plotted: 2/15/2017

GENERAL NOTES:

1. THE TEMPORARY SEDIMENT TRAP SHALL MEET ALL REQUIREMENTS FOR TEMPORARY SEDIMENT TRAPS OUTLINED IN THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK (LATEST REVISION) SECTION SIX: SEDIMENT CONTROL MEASURES
2. THE TEMPORARY SEDIMENT TRAP SHALL HAVE AN INITIAL STORAGE COLUMN OF 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER EXCEPT FOR THE EXCAVATED WET STORAGE AREA WHERE SLOPES SHALL NOT EXCEED 1.5:1.
4. THE OUTLET SHALL BE LOCATED AT THE MOST DISTANT HYDRAULIC POINT FROM THE INLET.
5. THE OUTLET CONSISTS OF A PERVIOUS STONE DIKE WITH A CORE OF MODIFIED RIPRAP AND FACED ON THE UPSTREAM SIDE WITH STONE.
6. TEMPORARY SEDIMENT TRAPS MUST OUTLET ONTO STABILIZED GROUND.
7. MAXIMUM HEIGHT OF A TEMPORARY SEDIMENT TRAP EMBANKMENT IS LIMITED TO 5 FEET.
8. SIDE SLOPES OF THE EMBANKMENT SHALL BE 2:1 OR FLATTER.
9. MODIFIED RIPRAP: SHALL MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.10.03.2.
10. FILTER STONE: SHALL MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.01.03 TABLE I, COLUMN V FILTER STONE.

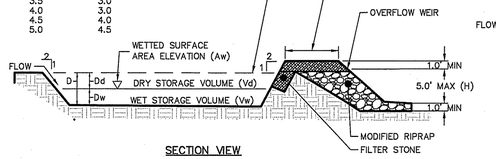
INSTALLATION NOTES:

1. CLEAR, GRUB AND STRIP ANY VEGETATION AND ROOT MAT FROM ANY PROPOSED EMBANKMENT AND OUTLET AREA.
2. REMOVE STONES AND ROCKS WHOSE DIAMETER IS GREATER THAN THREE (3) INCHES AND OTHER DEBRIS.
3. EXCAVATE WET STORAGE AND CONSTRUCT THE EMBANKMENT AND/OR OUTLET AS NEEDED TO ATTAIN THE NECESSARY STORAGE REQUIREMENTS.
4. USE ONLY FILL MATERIAL FOR THE EMBANKMENT THAT IS FREE FROM EXCESSIVE ORGANICS, DEBRIS, LARGE ROCKS (OVER SIX (6) INCHES) OR OTHER UNSUITABLE MATERIALS. COMPACT THE EMBANKMENT IN 9-INCH LAYERS BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED
5. STABILIZE THE EARTHEN EMBANKMENT USING ANY OF THE FOLLOWING MEASURES, SEEDING FOR TEMPORARY VEGETATION COVER; SEEDING FOR PERMANENT VEGETATIVE COVER; OR SLOPE PROTECTION, IMMEDIATELY AFTER INSTALLATION

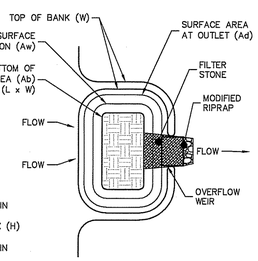
INSPECTION, MAINTENANCE, AND REMOVAL REQUIREMENTS:

1. INSPECT THE TEMPORARY SEDIMENT TRAP AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.25 INCH OR GREATER.
2. CHECK THE OUTLET TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT.
3. CHECK FOR SEDIMENT ACCUMULATION AND FILTRATION PERFORMANCE.
4. WHEN SEDIMENTS HAVE ACCUMULATED TO ONE HALF THE MINIMUM REQUIRED VOLUME OF THE WET STORAGE, DEWATER THE TRAP AS NEEDED, REMOVE SEDIMENTS AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS.
5. DISPOSE OF THE SEDIMENT REMOVED FROM THE BASIN IN A SUITABLE AREA.
6. THE TEMPORARY SEDIMENT TRAP MAY BE REMOVED AFTER THE CONTRIBUTING DRAINAGE AREA IS STABILIZED.

TOP WIDTH VS HEIGHT H=HEIGHT OF EMBANKMENT W=TOP WIDTH OF EMBANKMENT	
H (ft)	W (ft)
1.5	2.0
2.0	2.0
2.5	3.0
3.0	2.5
3.5	3.0
4.0	3.0
4.5	4.0
5.0	4.5



SECTION VIEW

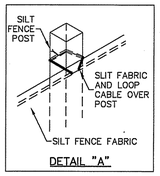


PLAN VIEW

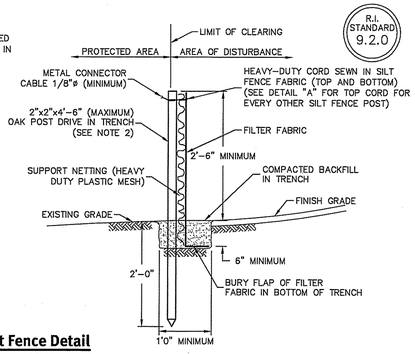
Temporary Sediment Trap Detail

NOT TO SCALE

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
2. 2"x2"x4'-6" (MAXIMUM) OAK POSTS FOR SILT FENCE SHALL BE LOCATED 8'-0" (MAXIMUM) O.C. IN WETLAND AREAS AND 4'-0" (MAXIMUM) O.C. IN WETLAND RAVINE. GULLY OR DROP-OFF AREAS AS SHOWN ON PLANS.
3. 1"x1"x4'-6"(MINIMUM) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
4. SILT FENCE SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.



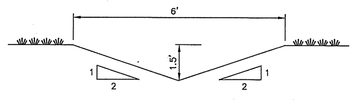
DETAIL "A"



R.I. STANDARD 9.2.0

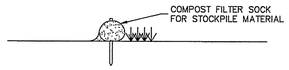
Silt Fence Detail

NOT TO SCALE



Temporary Diversion Channel (Soil Erosion and Sediment Control)

NOT TO SCALE

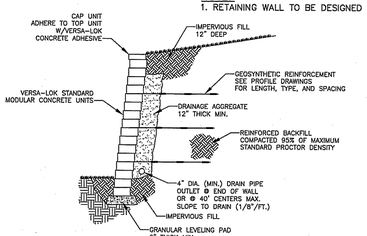


NOTES:
1. ALL MATERIAL TO MEET FILTREXX(R) SPECIFICATIONS
2. FILTER MEDIA(TM) FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER
4. STAKES ARE NOT TO BE USED IN PAVEMENT AREAS.
5. SELF WEIGHT OF FILTREXX SYSTEM IS ADEQUATE TO PREVENT SYSTEM OF MOVEMENT ONCE POSITIONED ALONG AREA SHOWN IN PLAN ABOVE.
6. CONTRACTOR TO PLACE FILTREXX SEDIMENT CONTROL OR EQUAL AROUND ALL CURB INLET LOCATIONS AS SPECIFIED ON PLANS.

Filtrexx Continuous Compost Filter Sock or Approved Equal

NOT TO SCALE

NOTE:
1. RETAINING WALL TO BE DESIGNED BY OTHERS.

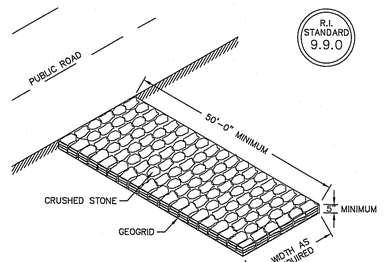


TYPICAL SECTION-REINFORCED RETAINING WALL
MODULAR CONCRETE UNIT
SCALE: NONE

THESE PRELIMINARY DETAILS ARE INTENDED AS AN AID IN DESIGNING ATTRACTIVE, DURABLE RETAINING WALLS WITH VERSA-LOK UNITS. FINAL DETERMINATION OF THE SUITABILITY OF ANY INFORMATION OR MATERIAL FOR THE SPECIFIC CONDITIONS AT YOUR SITE IS THE RESPONSIBILITY OF THE OWNER OR OWNER'S AGENT. FINAL ENGINEERING OF THE WALLS SHOULD BE PERFORMED BY A QUALIFIED, LICENSED, PROFESSIONAL ENGINEER.

VERSA-LOK® Retaining Wall Systems — Solid Solutions.™

VERSA-LOK STANDARD DETAILS	DWG. VLW-7 SHEET NO. 1 OF 1
REINFORCED TYPICAL SECTION	DRAWN: JPS CHECKED: JPS DESIGNED: — DATE: 10/2007 SCALE: NONE

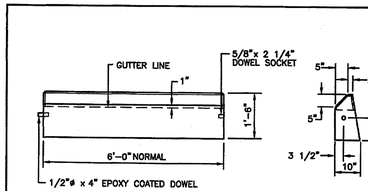


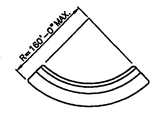
NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE R.I. STANDARD SPECIFICATIONS.

R.I. STANDARD 9.9.0

Construction Access

NOT TO SCALE





CIRCULAR CURB

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

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE

PRECAST CONCRETE SLOPED FACE CURB

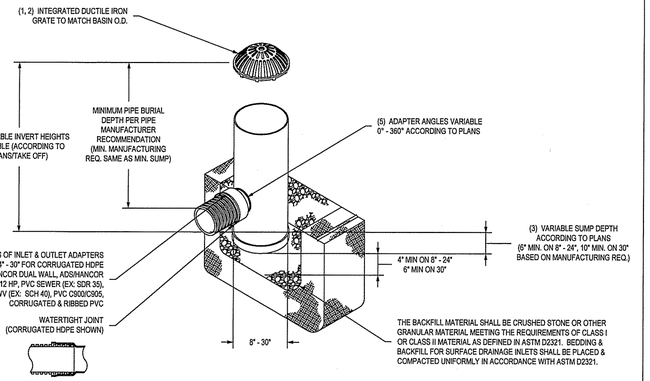
CHIEF ENGINEER OPERATIONS — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 7.2.0

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 24 2017 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Martin D. Wencek

NYLOPLAST DRAIN BASIN WITH DOME GRATE



1 - 8" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 6" & 10" DOME GRATES FIT ONTO THE DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-055.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 8" - 30" DOME GRATES HAVE NO LOAD RATING.

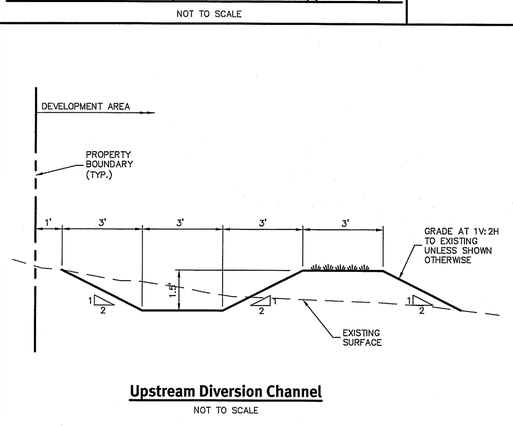
THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST. ©2010 NYLOPLAST

DRAWN BY	EBC	MATERIAL	
DATE	03-25-10		
REVISED BY	CCA	PROJECT NO./NAME	
DATE	09-05-13		
DWG SIZE	A	SCALE 1:40	SHEET 1 OF 1

Nyloplast — 3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com

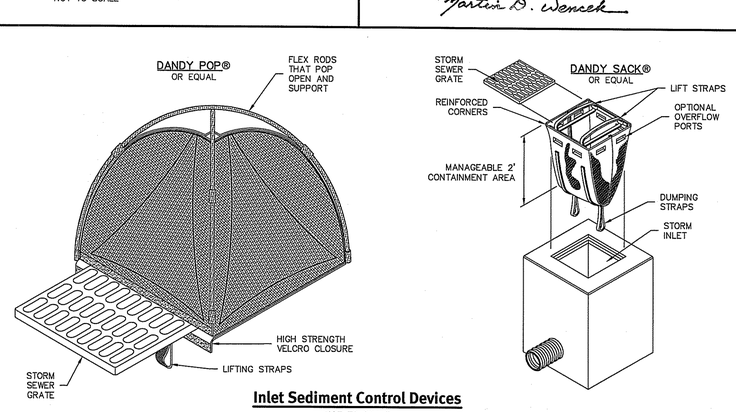
TITLE: DRAIN BASIN WITH DOME GRATE QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-207 REV C



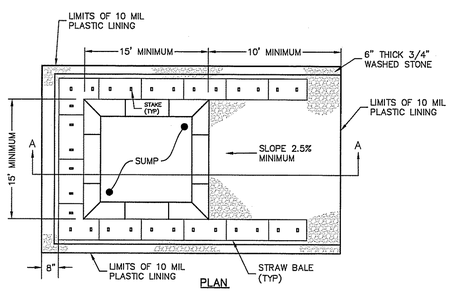
Upstream Diversion Channel

NOT TO SCALE

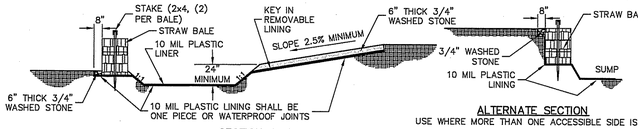


Inlet Sediment Control Devices

NOT TO SCALE



PLAN



SECTION A-A

ALTERNATE SECTION
USE WHERE MORE THAN ONE ACCESSIBLE SIDE IS NEEDED



WASHOUT SIGN

Concrete Washout Area

(NOT TO SCALE)

NOTES:
1. PIT IS SPECIFICALLY DESIGNATED, DIKED AND IMPERVIOUS CONTAINMENT TO PREVENT CONTACT BETWEEN CONCRETE WASH AND STORMWATER.
2. WASH WATER SHALL NOT BE ALLOWED TO FLOW TO SURFACE WATER.
3. FACILITY MUST HOLD SUFFICIENT VOLUME TO CONTAIN CONCRETE WASTE WITH A MINIMUM FREEBOARD OF 12."
4. FACILITY SHALL NOT BE FILLED BEYOND 95% CAPACITY UNLESS A NEW FACILITY IS CONSTRUCTED.
5. SAWCUT PORTLAND CEMENT CONCRETE, RESIDUE FROM SAWCUT AND GRINDING TO BE DISPOSED OF IN THE PIT.
6. CONCRETE WASHOUTS SHALL BE LOCATED A MINIMUM OF 100' FROM DRAINAGE WAYS, INLETS, AND SURFACE WATERS.
7. MANUFACTURED CONCRETE WASHOUT DEVICES MAY BE USED IF REMOVED FROM THE SITE WHEN 95% FULL CAPACITY.

FEB 21 2017

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

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The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

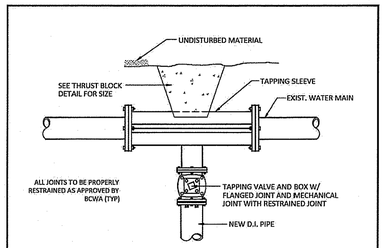
No.	Date	Description	By:
14	2-8-2017	Response to RIDM Comments	K.I.D.
13	11-29-2016	Response to Sewer Comments	K.I.D.
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11	11-14-2016	Response to NGRID Comments	K.I.D.
10	10-31-2016	Site Modification	K.I.D.
9	10-31-2016	Response to Comments	K.I.D.
8	9-7-2016	Response to NGRID Comments	K.I.D.
7	8-29-2016	Response to Comments	K.I.D.
6	7-29-2016	Response to Town Comments	P.A.R.
5	7-19-2016	Response to Comments	A.C.A.
4	7-7-2016	Response to Comments	A.C.A.
			Design By: MT
			Drawn By: ACA

Details - 7
Longplex Sports & Family Complex
Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816 in Tiverton, Rhode Island 02878
Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

DE Job No: 0XXX-XXX Copyright 2017 by DiPrete Engineering Associates, Inc.

SHEET 15 OF 17

z:\dems\projects\1895-001 tiverton industrial park\autocad drawing\1895-001-dtst.dwg Plotted: 2/15/2017



NOTE:

1.) TAPPING SLEEVE, VALVE AND PIPE TO BE DISINFECTED WITH CHLORINE SOLUTION PRIOR TO INSTALL.

2.) TAPPING SLEEVE TO BE PRESSURE TESTED USING AIR PRIOR TO TAPPING PIPE.

3.) ALL MATERIALS, BEDDING AND BACKFILL PER BCWA SPECIFICATIONS.

4.) THRUST BLOCK PER BCWA SPECIFICATIONS.

5.) ALL WORK AND MATERIALS SHALL BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/OR ACTIVATED.

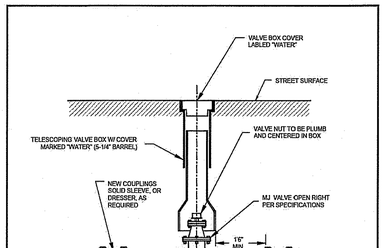
6.) WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

3.0-TAPNSSLEVE-2016.DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | TAPPING SLEEVE & VALVE | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 1/2016 | DETAIL 3.0

Tapping Sleeve & Valve

NOT TO SCALE



NOTE:

1.) ALL MATERIALS, BEDDING AND BACKFILL PER BCWA SPECIFICATIONS.

2.) ALL WORK AND MATERIALS SHALL BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/OR ACTIVATED.

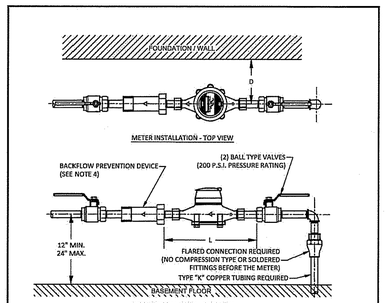
3.) WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

9.0 Cut in New Running Viv-2016 .DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | NEW MJ VALVE, INSTALLED IN EXISTING MAIN | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 1/2016 | DETAIL 3a

New MJ Valve in Existing Main

NOT TO SCALE



METER SIZE	L	D
5/8"	12 1/2"	12"
3/4"	14 1/4"	12"
1"	16 1/4"	12"
1 1/2" ("DSR")	13"	18"
2" ("DSR")	17"	18"

NOTES:

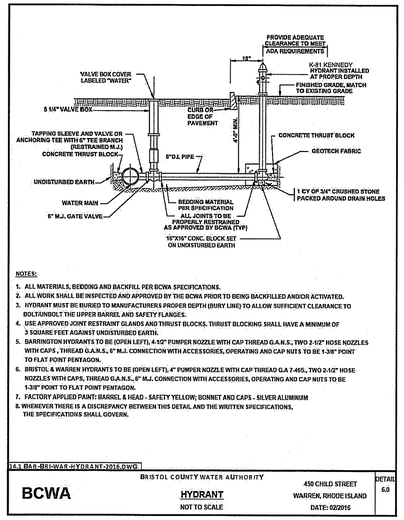
1. THE METER SHALL BE LOCATED AS NEAR AS POSSIBLE TO THE POINT AT WHICH THE SERVICE ENTERS THE BUILDING.
2. THE METER SHALL BE INSTALLED HORIZONTALLY.
3. METERS INSTALLED INSIDE BUILDINGS SHALL NOT BE INSTALLED IN PITS.
4. INDIVIDUAL RESIDENCES (RESTRICTED TO 3-UNIT RESIDENCES OR LESS) REQUIRE A RESIDENTIAL DUAL CHECK VALVE; ALL OTHER WATER SERVICES REQUIRE A BCWA APPROVED TESTABLE BACKFLOW PREVENTION DEVICE IN ACCORDANCE WITH BCWA RULES & REGULATIONS. ALL MODELS OF BACKFLOW PREVENTION DEVICES ARE REQUIRED TO BE LEAD FREE.

75-Meter Installation Detail-2015.DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | METER INSTALLATION DETAIL | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 11/2015 | DETAIL 12a

Meter Installlation

NOT TO SCALE



NOTES:

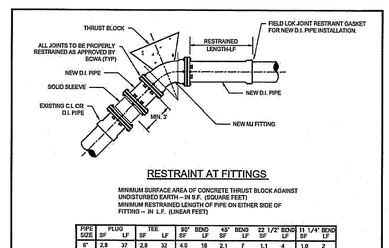
1. ALL MATERIALS, BEDDING AND BACKFILL PER BCWA SPECIFICATIONS.
2. ALL WORK SHALL BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/OR ACTIVATED.
3. HYDRANT MUST BE BURIED TO MANUFACTURERS PROPER DEPTH (BURY LINE) TO ALLOW SUFFICIENT CLEARANCE TO BOLT/UNBOLT THE UPPER BARREL AND SAFETY FLANGES.
4. USE APPROVED JOINT RESTRAINT GLANDS AND THRUST BLOCKS. THRUST BLOCKING SHALL HAVE A MINIMUM OF 3 SQUARE FEET AGAINST UNDISTURBED EARTH.
5. BARRINGTON HYDRANTS TO BE (OPEN LEFT), 4-1/2" PUMPER NOZZLE WITH CAP THREAD G.A.N.S., TWO 2-1/2" HOSE NOZZLES WITH CAPS , THREAD G.A.N.S., 6" M.J. CONNECTION WITH ACCESSORIES, OPERATING AND CAP NUTS TO BE 1-3/8" POINT TO FLAT POINT PENTAGON.
6. BRISTOL & WARREN HYDRANTS TO BE (OPEN LEFT), 4" PUMPER NOZZLE WITH CAP THREAD G.A 7-46S., TWO 2-1/2" HOSE NOZZLES WITH CAPS, THREAD G.A.N.S., 6" M.J. CONNECTION WITH ACCESSORIES, OPERATING AND CAP NUTS TO BE 1-3/8" POINT TO FLAT POINT PENTAGON.
7. FACTORY APPLIED PAINT: BARREL & HEAD - SAFETY YELLOW; BONNET AND CAPS - SILVER ALUMINUM
8. WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

14.1 Bar-Brswar-Hydrant-2016.DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | HYDRANT | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 02/2016 | DETAIL 6.0

Hydrant Detail

NOT TO SCALE



RESTRAINT AT FITTINGS

MINIMUM SURFACE AREA OF CONCRETE THRUST BLOCK AGAINST UNDISTURBED EARTH – IN S.F. (SQUARE FEET)
MINIMUM RESTRAINED LENGTH OF PIPE ON EITHER SIDE OF FITTING – IN L.F. (LINEAR FEET)

PIPE SIZE	PLUG SF	PLUG LF	TEE SF	TEE LF	90° BEND SF	90° BEND LF	45° BEND SF	45° BEND LF	22 1/2° BEND SF	22 1/2° BEND LF	11 1/4° BEND SF	11 1/4° BEND LF
6"	2.9	37	2.9	32	4.0	18	2.1	7	1.1	4	1.0	2
8"	4.8	48	4.8	43	6.6	23	3.7	10	1.9	5	1.0	2
10"	7.3	58	7.3	53	10.3	28	5.5	12	2.8	6	1.4	3
12"	10.3	69	10.3	63	14.5	33	7.2	14	4.0	6	2.0	3
16"	17.8	89	17.8	83	25.2	42	13.0	17	7.0	8	3.5	4
20"	27.5	110	27.5	103	38.9	51	21.0	21	10.7	10	5.4	5
24"	39.2	127	39.2	121	55.4	59	30.0	25	15.3	12	7.7	6

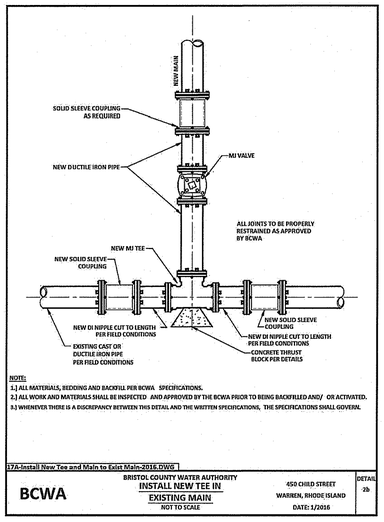
1. ALL CONCRETE TO BE CLASS B. (4E)
2. THE "SF" VALUES IN THE ABOVE TABLE ARE BASED ON 3000 p.s.f. SOIL BEARING CAPACITY, 150 p.s.i. TEST PRESSURE AND A 1.5 FACTOR OF SAFETY.
3. THE "LF" VALUES IN THE ABOVE TABLE ARE BASED ON A TYPE 3 LAYING CONDITION, A SAND SILT SOIL DESIGNATION, A 5 FOOT RUN LENGTH, 150 P.S.I. TEST PRESSURE AND A 1.5 FACTOR OF SAFETY AS USED IN THE "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" COMPUTER PROGRAM BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION.
4. WHERE CONDITIONS OR EXCAVATION LIMITS ENCOUNTERED DURING CONSTRUCTION MAKE IT UNFEASIBLE TO PLACE THRUST BLOCKS AGAINST UNDISTURBED EARTH OF THE PROPER BEARING CAPACITY, THE CONTRACTOR SHALL DESIGN AND PLACE SPECIAL REACTION BLOCKS OF SUFFICIENT WEIGHT TO RESIST FULL THRUST UNDER ALL CONDITIONS. THE DESIGN SHALL BE SUBJECT TO BCWA APPROVAL.
5. MINIMUM SURFACE AREAS SHALL BE INCREASED BY 50% IF DEEMED NECESSARY BY THE ENGINEER.
6. A MECHANICAL JOINT RESTRAINT SYSTEM MUST BE USED FOR VERTICAL BENDS.
7. AT THE DISCRETION OF THE ENGINEER, A JOINT RESTRAINT SYSTEM MAY BE SUBSTITUTED FOR OR USED IN ALL COMBINATION WITH PROPER THRUST BLOCKING.
8. A 48 HR. CURING PERIOD MUST BE GIVEN BEFORE FULL LINE PRESSURE CAN BE APPLIED TO NON CONCRETE THRUST BLOCKS.
9. ANCHOR BLOCK DESIGN FOR PIPE LARGER THAN 24" SHALL BE REVIEWED ON AN INDIVIDUAL BASIS BY THE BCWA.
10. WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

4.0A-BCWA-THRBLK+RESTRDET-2016.DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | THRUST BLOCK AND RESTRAINTS AT FITTINGS | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 2/2016 | DETAIL 8.0

Thrust Block & Restraint at Fittings

NOT TO SCALE



NOTE:

1.) ALL MATERIALS, BEDDING AND BACKFILL PER BCWA SPECIFICATIONS.

2.) ALL WORK AND MATERIALS SHALL BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/ OR ACTIVATED.

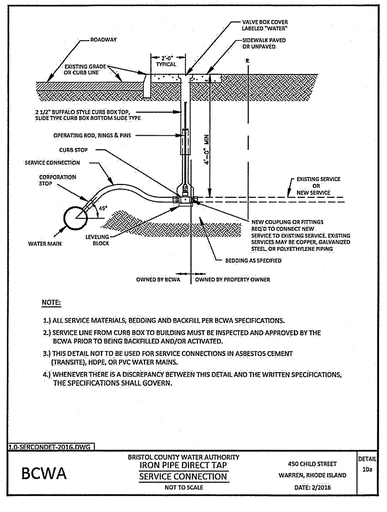
3.) WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

17A-Install New Tee and Main to Exist Main-2016.DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | INSTALL NEW TEE IN EXISTING MAIN | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 1/2016 | DETAIL 2b

New Tee in Existing Main

NOT TO SCALE



NOTE:

1.) ALL SERVICE MATERIALS, BEDDING AND BACKFILL PER BCWA SPECIFICATIONS.

2.) SERVICE LINE FROM CURB BOX TO BUILDING MUST BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/OR ACTIVATED.

3.) THIS DETAIL NOT TO BE USED FOR SERVICE CONNECTIONS IN ASBESTOS CEMENT (TRANSITE), HDPE, OR PVC WATER MAINS.

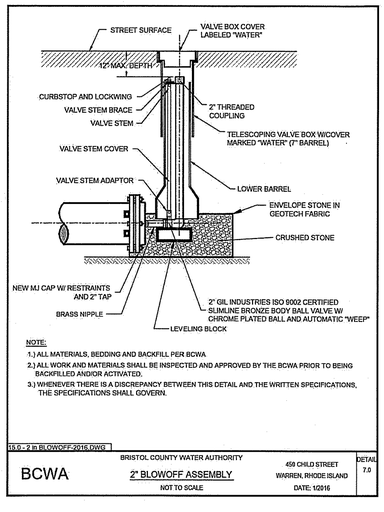
4.) WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

1.0-SERCONDET-2016.DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | IRON PIPE DIRECT TAP SERVICE CONNECTION | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 2/2016 | DETAIL 10a

Iron Pipe Connection

NOT TO SCALE



NOTE:

1.) ALL MATERIALS, BEDDING AND BACKFILL PER BCWA.

2.) ALL WORK AND MATERIALS SHALL BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/OR ACTIVATED.

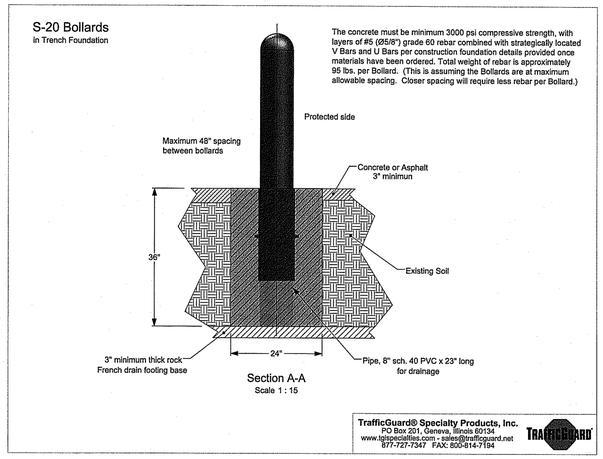
3.) WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

18.0 - 2 in BLOWOFF-2016.DWG

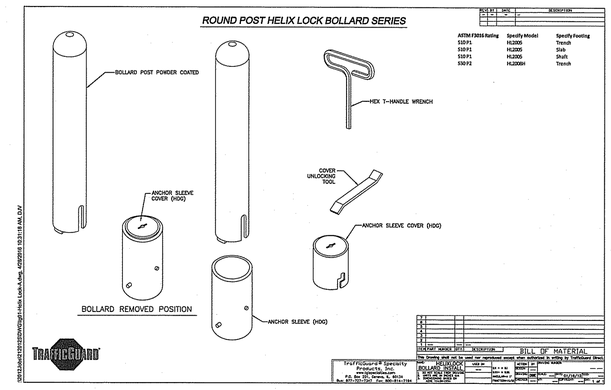
BCWA | BRISTOL COUNTY WATER AUTHORITY | 2" BLOWOFF ASSEMBLY | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 1/2016 | DETAIL 7.0

2" Blowoff Assembly

NOT TO SCALE



The concrete must be minimum 3000 psi compressive strength, with layers of #5 (Ø5/8") grade 60 rebar combined with strategically located V Bars and U Bars per construction foundation details provided once materials have been ordered. Total weight of rebar is approximately 95 lbs. per Bollard. (This is assuming the Bollards are at maximum allowable spacing. Closer spacing will require less rebar per Bollard.)



Single Post Removable Bollard

NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 24 2017 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Martin D. Wencek

RECEIVED FEB 21 2017

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

This regulatory submission set shall not be used for construction purposes unless stamped "Issued for Construction" and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No	Date	Description	Drawn By:
14	2-2-2017	Response to DEM Comments	K.F.D.
13	11-29-2016	Response to Sewer Comments	K.F.D.
12	11-15-2016	Response to NGRID Comments	K.F.D.
11	11-14-2016	Response to NGRID comments	K.F.D.
10	10-11-2016	Site Modifications	K.F.D.
9	9-26-2016	Response to NGRID Comments	K.F.D.
8	9-7-2016	Response to NGRID comments	K.F.D.
7	8-26-2016	Response to DEM Comments	K.F.D.
6	7-26-2016	Response to Comments	A.C.A.
5	7-19-2016	Response to Comments	A.C.A.
4	7-7-2016	Response to Town Comments	A.C.A.
3	6-2016	Response to Comments	A.C.A.
No	Date	Description	By:

Design By: MT

Details - 8

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816 in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
795 Aquidneck Avenue, Middletown Rhode Island 02842

SHEET 16 OF 17

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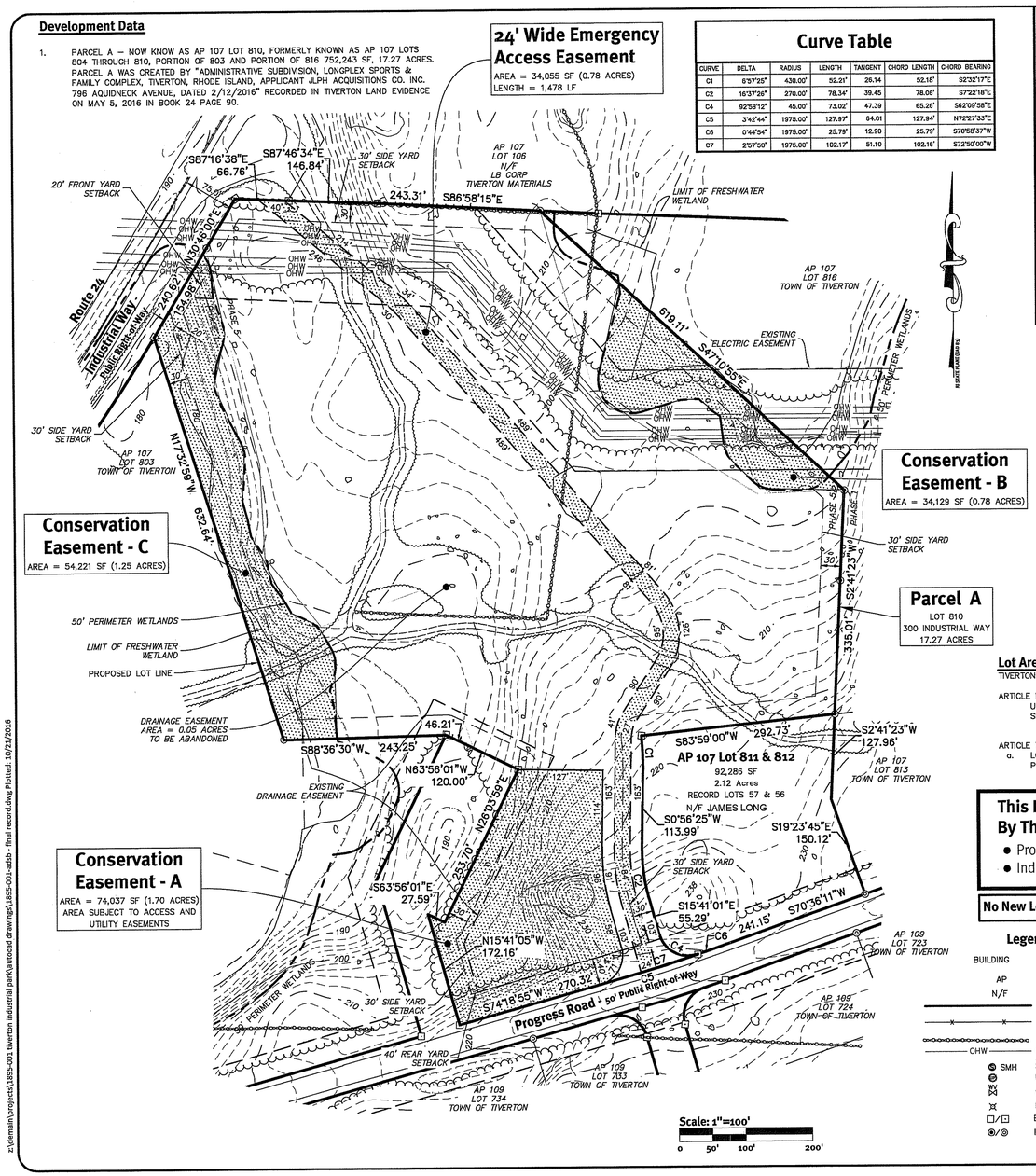
Development Data

1. PARCEL A – NOW KNOW AS AP 107 LOT 810, FORMERLY KNOWN AS AP 107 LOTS 804 THROUGH 810, PORTION OF 803 AND PORTION OF 816 752,243 SF, 17.27 ACRES. PARCEL A WAS CREATED BY "ADMINISTRATIVE SUBDIVISION, LONGPLEX SPORTS & FAMILY COMPLEX, TIVERTON, RHODE ISLAND, APPLICANT JLPH ACQUISITIONS CO. INC. 796 AQUIDNECK AVENUE, DATED 2/12/2016" RECORDED IN TIVERTON LAND EVIDENCE ON MAY 5, 2016 IN BOOK 24 PAGE 90.

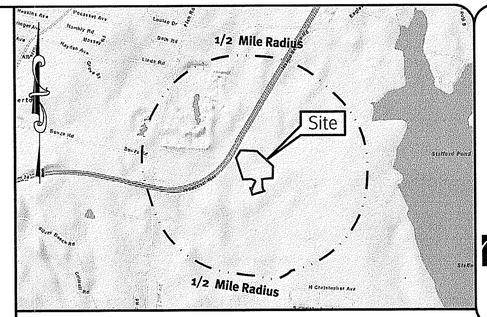
24' Wide Emergency Access Easement
AREA = 34,055 SF (0.78 ACRES)
LENGTH = 1,478 LF

Curve Table

CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD LENGTH	CHORD BEARING
C1	6°57'25"	430.00'	52.21'	26.14	52.18'	S2°32'17"E
C2	16°37'26"	270.00'	78.34'	39.45	78.06'	S7°22'16"E
C4	92°58'12"	45.00'	73.02'	47.39	65.26'	S62°09'58"E
C5	3°42'44"	1975.00'	127.97'	64.01	127.94'	N72°23'33"E
C6	0°44'54"	1975.00'	25.79'	12.90	25.79'	S70°58'37"W
C7	2°57'50"	1975.00'	102.17'	51.10	102.16'	S72°50'00"W



Scale: 1"=100'
0 50' 100' 200'



1/2 Mile Locus Scale: 1"=2000'

Notes:

1. ALL LOTS WITHIN THE SITE ARE ZONED INDUSTRIAL. PLANNED DEVELOPMENT PARK
2. THE OWNER OF PARCEL A IS: LONGPLEX LLC, 796 AQUIDNECK AVENUE, MIDDLETOWN, RI 02842
3. THE APPLICANT IS: LONGPLEX LLC, 796 AQUIDNECK AVENUE, MIDDLETOWN, RI 02842
4. TOPOGRAPHY SHOWN BASED ON RIGIS LIDAR DATA DERIVED FROM A 1–METER RESOLUTION DIGITAL ELEVATION MODEL ORIGINALLY DEVELOPED AS PART OF THE SPRING 2011 NORTHEAST LIDAR PROJECT, DATUM NAVD 88.
5. WETLANDS DELINEATED AND SURVEYED USING GPS SUBMETER TECHNOLOGY BY DIPRETE ENGINEERING, 2 STAFFORD COURT, CRANSTON, RI 02920 (401)943–1000. WETLAND EDGE VERIFIED UNDER RIDEM PERMIT NUMBER OCTA–11–012.
6. THE SITE LIES WITHIN THE TOWN OF TIVERTON PLANNED DEVELOPMENT PARK FLOATING ZONE.
7. REFERENCE BOOK 1581 PAGE 159 FOR THE RESOLUTION OF THE COUNCIL ROAD ABANDONMENT.
8. REFERENCE BOOK 1581 PAGE 162 FOR THE WARRANTY DEED WITH RESERVATIONS FOR THE CONSERVATION EASEMENT AND ACCESS EASEMENT.

Lot Area Calculations:

TIVERTON ZONING

ARTICLE II SECTION C(89)
UNSUITABLE LAND = 22,804 SF WETLAND AREA + 37,323 SF AREA WITH >21% SLOPES = 60,127 SF
SUITABLE LAND = 752,281 SF TOTAL AREA – 60,127 SF UNSUITABLE LAND = 692,154 SF

ARTICLE V SECTION 3
a. LOT COVERAGE
PROPOSED LOT COVERAGE = 34,055 SF IMPERVIOUS AREA /692,154 SF = 4.9%

This Plan Should Be Indexed By The Following Streets:
- Progress Road
- Industrial Way

No New Lots are Created by This Plan

THE PURPOSE OF THIS PLAN IS TO DELINEATE A 24' WIDE EMERGENCY ACCESS EASEMENT AND A CONSERVATION EASEMENT ON PARCEL A

Reference Plan:

"RECORD PLAN – PHASE 5, TIVERTON INDUSTRIAL PARK, TIVERTON, RHODE ISLAND, BLOCK 113 CARDS 69 & 72 (AP 107 LOT 105 & AP 109 LOT 101)", DATED 5/25/2012 BY DIPRETE ENGINEERING.

Legend

BUILDING
AP ASSESSOR'S PLAT
N/F NOW OR FORMERLY
PROPERTY LINE
FENCE
STONE WALL
OHW OVERHEAD WIRES
SMH SEWER/SEPTIC MANHOLE
UTILITY/POWER POLE
WATER VALVE
FIRE HYDRANT
BOUND FOUND/SET
IRON ROD/PIPE FOUND/SET

Certification:
THIS SURVEY AND PLAN CONFORMS TO A CLASS I STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.

CHRISTOPHER A. DUHAMEL
No. 1844
PROFESSIONAL LAND SURVEYOR
10-21-16

BY Christopher A. Duhamel
CHRISTOPHER A. DUHAMEL, RI.P.L.S. #1844
C.O.A. NO. LS–A160

DiPrete Engineering
50 Broadway Newport, RI 02840
tel 401•619•9890 fax 401•464•6006 www.DiPrete-Eng.com
Engineers • Planners • Surveyors

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No.	Date	Description	By:
1	10-25-2016	Response to Town Comments	AKA
2	10-31-2016	Emergency Access Easement Revision	AKA
3	7-19-2016	Response to Comments	JAR
4	12-29-2016	Response to Additional Comments	JAR
5	06-09-2016	Minor Subdivision Submission	JAR

Drawn By: J.A.R. Design By: M.R.T.

Minor Subdivision Plan
Longplex Sports & Family Complex
Tiverton, Rhode Island
Assessor's Plat 107 Lot 810

Longplex LLC
796 Aquidneck Avenue, Middletown, Rhode Island 02842

Date: 06/03/2016

SHEET 17 OF 17

DE Job No: 1895-001 Copyright 2016 by DiPrete Engineering Associates, Inc.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 24 2017 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Martin D. Wenech

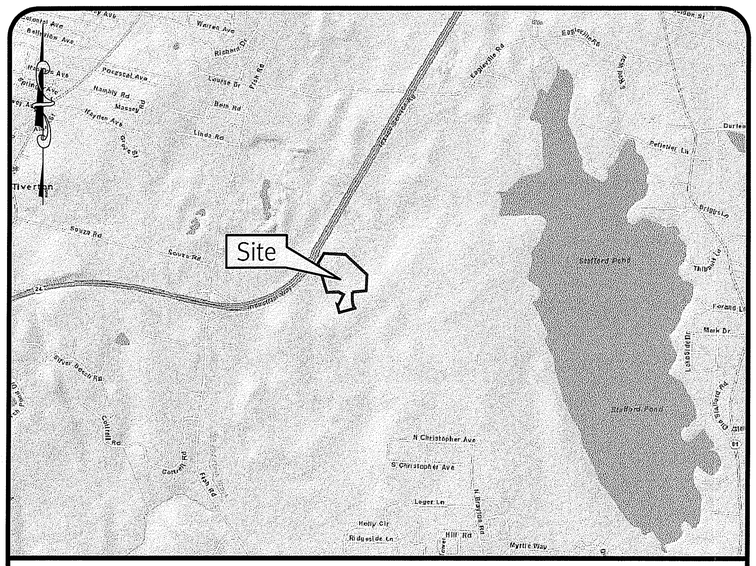
FEB 21 2017

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RIDEM Preliminary Determination Submission

Longplex Sports & Family Complex

Tiverton, Rhode Island



Location Map 1"=1,500'

Sheet Index

Commercial/Industrial Development Site Plan/Design Plan Review

1. Cover
2. Aerial
3. Notes
4. Site Layout Plan
5. Utility Plan - Overall
6. Utility Plan
7. Grading Plan
8. Soil Erosion & Sediment Control Plan
9. Details - 1
10. Details - 2
11. Details - 3
12. Details - 4
13. Details - 5
14. Details - 6
15. Details - 7
16. Details - 8
17. Existing Conditions Plan

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 5 2016 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

KEVIN DEMERS
8557
REGISTERED PROFESSIONAL ENGINEER
CIVIL

Environmental Management
AUG 2 2016
Office of Water Resources

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The contractor is responsible for all of the means, methods, safety precautions and requirements and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
7	8-2-2016	Response to DEM Comments	KVD
6	7-28-2016	Response to Town Comments	JAR
5	7-19-2016	Response to Comments	ACA
4	6-6-2016	Response to DEM Comments	ACA
3	5-5-2016	Minor Subdivision Submission	ACA
2	3-31-2016	Response to Town Comments	ACA
1	12-9-2015	DEM/CRMC Preliminary Determination	ACA
0	10-13-2015	Pre-Application Submission	ACA

Drawn By: ACA | Design By: MT

Cover

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

SHEET 1 OF 17

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1/2 Mile Radius

Stafford Pond

Fish Road

Route 24

Souza Road

Industrial Way

Tiverton Power Plant

Tiverton Police Department

Tiverton DPW

Site

Fish Road

1/2 Mile Radius

Tiverton High School

USGS Map Scale: 1"=1500'

Photo obtained from the RI-GIS 2008 Aerials

Scale: 1"=500'

0 250' 500' 1000'

AUG 5 2016

16-016

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

KEVIN DEMERS
8567
REGISTERED PROFESSIONAL ENGINEER
CIVIL

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No	Date	Description	By:
6	7-28-2016	Response to Town Comments	JAK
5	7-25-2016	RIDEM Response to Comments	ACA
4	7-7-2016	RIDEM PDI Response to Comments	ACA
3	6-3-2016	Minor Subdivision Submission	ACA
2	5-6-2016	Response to Town Comments/Pre-Pres.	ACA
1	05-05-2016	RIDEM Preliminary Determination	BLD
0	1-13-2015	Pre-Application Submission	ACA

Drawn By: ACA Design By: MT

Aerial

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

SHEET 2 OF 17

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Grading and Utility Notes:

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENT CONTROL ONSITE. THE CONTRACTOR IS TO NOTIFY THE DESIGN ENGINEER, THE DIRECTOR OF PUBLIC WORKS, THE TOWN ENGINEER, AND RI DEPT. OF ENVIRONMENTAL MANAGEMENT AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
2. CONTRACTOR TO OBTAIN ALL FEDERAL, STATE, AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.
3. CONSTRUCTION TO COMMENCE SUMMER 2016 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.
4. ALL WORK PERFORMED HEREIN SHALL BE GOVERNED BY THE RHODE ISLAND STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AND TOWN OF TIVERTON STANDARD SPECIFICATIONS AND DETAILS.
5. SEQUENCE OF CONSTRUCTION PROVIDED/SHOWN IN SESC MAY BE MODIFIED AS FIELD CONDITIONS WARRANT WITH PRIOR APPROVAL FROM THE OWNER OR OWNER'S REPRESENTATIVE.
6. 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 DIPRETE ENGINEERING THAT UTILITY SERVICE IS AVAILABLE.
7. 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.
8. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.
9. ALL PROPOSED UNDERGROUND UTILITIES SERVING THE SITE AND BUILDINGS TO BE COORDINATED WITH APPLICANT, ARCHITECT, AND ENGINEER PRIOR TO INSTALLATION.
10. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION INCLUDING ALL REVISIONS.
11. ALL RETAINING WALLS AND STEEP SLOPES ARE SHOWN SCHEMATICALLY ONLY AND DIPRETE ENGINEERING IS NOT PROVIDING THE DESIGN OF THESE ITEMS. THE ACTUAL WALLS AND SLOPES ARE TO BE BUILT UNDER THE DIRECTION OF A GEOTECHNICAL ENGINEER AND CERTIFIED TO THE COMPLETION OF THE PROJECT. SHOP DRAWINGS TO BE SUBMITTED PRIOR TO CONSTRUCTION.
12. 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 APPLICANT AT THE COMPLETION OF THE PROJECT. DIPRETE ENGINEERING ASSOCIATES, INC. IS NOT PROVIDING THE FILL SPECIFICATION, GEOTECHNICAL ENGINEERING, STRUCTURAL ENGINEERING SERVICES, OR SUPERVISION AS PART OF THESE DRAWINGS.
13. ALL COMPONENTS OF THE DRAINAGE, SEWER 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.
14. NO STOCKPILING OF MATERIAL TO BE LOCATED IN THE RIGHT OF WAY AND NO OPEN TRENCHES ARE TO BE LEFT OVERNIGHT.
15. ALL LOAM IN DISTURBED AREAS TO BE STOCKPILED FOR FUTURE USE.
16. ALL EXCESS SOIL, TREES, ROCKS, BOULDERS, AND OTHER REFUSE, SHALL BE DISCARDED OFF SITE IN AN ACCEPTABLE MANNER AT AN APPROVED LOCATION. STUMPS SHALL BE GROUND ONSITE OR REMOVED.
17. NO STUMP DUMPS ARE PROPOSED ONSITE.
18. ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS FROM OTHERS, OR INFORMATION PROVIDED TO DIPRETE ENGINEERING AND ARE SUBJECT TO CHANGE. THE LOCATIONS OF UNDERGROUND PIPES AND CONDUITS HAVE BEEN DETERMINED FROM AFOREMENTIONED PLANS OF RECORD 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 BY THE CONTRACTOR. CALL THE DIG SAFE CENTER TOLL FREE AT 1-888-344-7233 IN MA, ME, NH, RI & VT, CALL 1-800-922-4455 IN CT 72 HOURS (48 HOURS IN VT AND CT) PRIOR TO EXCAVATION. NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO EXCAVATION. ANY DAMAGE TO UTILITIES WHICH ARE SHOWN ON THE PLANS OR DETAILED BY DIG SAFE SHALL BE THE SITE CONTRACTORS RESPONSIBILITY.
19. IF CONCRETE TRUCKS ARE WASHED OUT ONSITE, ALL WASHOUT MUST BE COMPLETED IN THE DESIGNATED CONCRETE WASHOUT AREA.
20. ALL PERMANENT SLOPES GRADED 3:1 SHOULD BE COVERED WITH A SEMI-PERMANENT BIODEGRADABLE EROSION CONTROL BLANKET.
21. ALL PERMANENT SLOPES GRADED GREATER THAN 3:1 AND UP TO 2:1 SHALL BE COMPLETELY COVERED WITH PERMANENT NON-BIODEGRADABLE EROSION CONTROL BLANKETS.

Traffic Notes:

1. DURING CONSTRUCTION TRAFFIC CONES ARE TO BE USED FOR SEPARATION OF ACTIVE TRAFFIC FROM WORK ZONE.
2. DURING CONSTRUCTION FLAGGERS SHALL BE EMPLOYED TO ENSURE SAFETY FOR INTERACTION OF CONSTRUCTION VEHICLES AND ACTIVE TRAFFIC.
3. ALL SIGNS, FLAGGERS, TRAFFIC CONTROL DEVICES, AND TEMPORARY TRAFFIC ZONE ACTIVITIES SHALL MEET THE REQUIREMENTS OF THE MUTCD LATEST EDITION AND SUBSEQUENT ADDENDA.
4. TEMPORARY CONSTRUCTION SIGNS SHALL BE MOUNTED ON RIDOT APPROVED SUPPORTS AND SHALL BE REMOVED OR COVERED WHEN NOT APPLICABLE.
5. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION.

Layout and Materials:

1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
2. CURB RADII ARE 5 FEET UNLESS OTHERWISE NOTED.
3. CURBING SHALL BE PRECAST CONCRETE, MONOLITHIC CONCRETE, CAST IN-PLACE CONCRETE, BITUMINOUS CURB, BITUMINOUS BERM OR GRANITE OR AS LABELED ON THE PLANS.
4. SIDEWALK SHALL BE CONCRETE, EXPOSED AGGREGATE CONCRETE, STAMPED CONCRETE OR BITUMINOUS OR AS LABELED ON THE PLANS.
5. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
6. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
7. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.
8. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.

General Notes:

1. ALL LOTS WITHIN THE SITE ARE ZONED INDUSTRIAL.
2. THE OWNER OF AP 107 LOTS 803-812 & 816 IS: TOWN OF TIVERTON, 343 HIGHLAND ROAD, TIVERTON, RI 02878

   THE APPLICANT IS: LONGPLEX LLC, 796 AQUIDNECK AVENUE, MIDDLETOWN, RI 02842
3. TOPOGRAPHY SHOWN BASED ON RIGIS LIDAR DATA DERIVED FROM A 1-METER RESOLUTION DEM ORIGINALLY DEVELOPED AS PART OF THE SPRING 2011 NORTHEAST LIDAR PROJECT, DATUM NAVD 88.
4. WETLANDS DELINEATED AND SURVEYED USING GPS SUBMETER TECHNOLOGY BY DIPRETE ENGINEERING, 2 STAFFORD COURT, CRANSTON, RI 02920 (401)943-1000. WETLAND EDGE VERIFIED UNDER RIDEM PERMIT NUMBER OCTA-11-012.
5. THIS SITE IS LOCATED IN A FEMA UNSHADED ZONE X. REFERENCE FEMA FLOOD INSURANCE PANEL 44005C0043H. PANEL NOT PRINTED BY FEMA SINCE THERE ARE NO SPECIAL FLOOD HAZARD AREAS.

   ZONE X (UNSHADED) - THIS SITE IS LOCATED IN FEMA FLOOD ZONE X. ZONE X ARE AREAS WHERE THERE IS MINIMAL FLOODING.
6. THE BOUNDARY LINE AS SHOWN ON THIS PLAN DEPICTS A CLASS I SURVEY AS PERFORMED BY DIPRETE ENGINEERING ASSOCIATES, INC. THE PLAN ITSELF CONFORMS ONLY TO A CLASS III STANDARD AS ADOPTED BY RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS. THIS PLAN IS NOT TO BE CONSTRUED AS A CLASS I BOUNDARY PLAN AND IS NOT SUITABLE FOR RECORDING AS A CLASS I STANDARD.
7. SOIL MAPPING OBTAINED FROM SOIL SURVEY OF RHODE ISLAND, PREPARED BY U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.
8. THE SITE IS NOT WITHIN A:
   - GROUNDWATER PROTECTION AREA (RIDEM)
   - NATURAL HERITAGE AREAS (RIDEM)
   - GROUNDWATER PROTECTION OVERLAY DISTRICT (TOWN)
9. DETAILED SOIL EROSION AND SEDIMENT CONTROL MEASURES TO BE INCORPORATED AT THE PRELIMINARY DESIGN STAGE AND WILL CONFORM TO RIDEM BEST MANAGEMENT PRACTICES.
10. THE SITE IS TO BE SERVICED BY PUBLIC WATER AND PUBLIC SEWER.
11. ROADWAY TO BE PRIVATE 24' WIDE PAVEMENT (11' TRAVEL LANES AND 1' BERM ON EACH SIDE EXCEPT FOR CONCRETE SURB WHERE SHOWN).
12. THE DRAINAGE SYSTEM IS DESIGNED TO MEET THE TOWN OF TIVERTON SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WITH THE USE OF CATCH BASINS, CULVERTS, AND DRAINAGE BMPS. THE STORMWATER MANAGEMENT SYSTEM MEETS THE RIDEM BEST MANAGEMENT PRACTICES.
13. THE SITE IS PROPOSED TO BE BUILT IN 1 PHASE.
14. BORINGS B-1 THROUGH B-23. B-5(88) THROUGH B-8(88), TP-1(88) THROUGH TP-6(88) AND TP-10(88) OBTAINED FROM REPORT ENTITLED TIVERTON POWER ASSOCIATED GEOTECHNICAL REPORT, TIVERTON INDUSTRIAL PARK TIVERTON, RHODE ISLANDED, DATED DECEMBER 1996 PREPARED BY MAGUIRE GROUP INC. ADDITIONAL TEST PITS AND SOIL EVALUATIONS WERE COMPLETED BY DIPRETE ENGINEERING ON FEBRUARY 17, 2016.
15. WETLANDS DELINEATED AND SURVEYED USING GPS SUBMETER TECHNOLOGY BY DIPRETE ENGINEERING, 2 STAFFORD COURT, CRANSTON, RI 02920 (401)943-1000. WETLAND EDGE VERIFIED UNDER RIDEM PERMIT NUMBER OCTA-11-012.

Soil Information:

(REFERENCE: SOIL SURVEY OF RHODE ISLAND, U.S.D.A. SOIL CONSERVATION SERVICE)

SOIL NAME	DESCRIPTION
BaB	BROADBROOK VERY STONY SILT LOAM, 0%-8% SLOPES
CeC	CANTON AND CHARLTON FINE SANDY LOAMS, VERY ROCKY, 3%-15% SLOPES
Mc	MANSFIELD VERY STONY MUCKY SILT LOAM

ADA Notes:

1. ALL IMPROVEMENTS SHALL COMPLY WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)" BY THE DEPARTMENT OF JUSTICE.
2. MAXIMUM RUNNING SLOPE ALONG ALL ACCESSIBLE PATHS OF TRAVEL SHALL BE 4.5% OR 0.045 '/, AND MAXIMUM CROSS SLOPE ALONG ALL ACCESSIBLE PATHS OF TRAVEL SHALL BE 0.015'/.
3. MAXIMUM SLOPE IN ALL DIRECTIONS FOR ALL ACCESSIBLE PARKING SPACES AND LOADING AREAS SHALL BE 0.015'/.
4. A 5'x5' LANDING WITH A MAXIMUM SLOPE OF 1.5% OR 0.015'/, IN ALL DIRECTIONS SHALL BE PROVIDED IN FRONT OF ALL PUBLICLY ACCESSIBLE BUILDING ENTRANCES/EGRESSES.
5. SIDEWALK CURB RAMPS SHALL COMPLY WITH DIPRETE ENGINEERING DETAILS THAT MEET OR EXCEEDING RIDOT STANDARDS 43.3.0, 43.3.1, & 43.4.1 AS SHOWN ON THE DETAIL SHEET.
6. PLEASE NOTE THAT THE GRADING AND PLAN VIEWS AS WELL AS THE STANDARD DETAILS MAY NOT SHOW THE DETAIL NECESSARY TO CONSTRUCT WALKWAYS AND RAMPS TO ADA STANDARDS. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE LEVEL OF CARE NECESSARY TO BE CERTAIN THAT THE CONSTRUCTED PRODUCT MEETS ADA STANDARDS. IN THE EVENT OF ANY CONFLICTS THE CONTRACTOR SHALL NOTIFY THE DESIGNER BEFORE CONSTRUCTION FOR ADVICE IN FINDING A RESOLUTION.

Demolition Notes:

1. ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS FROM OTHERS, OR INFORMATION PROVIDED TO DIPRETE ENGINEERING AND ARE SUBJECT TO CHANGE. THE LOCATIONS OF UNDERGROUND PIPES AND CONDUITS HAVE BEEN DETERMINED FROM AFOREMENTIONED PLANS OF RECORD 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 BY THE CONTRACTOR. CALL THE DIG SAFE CENTER TOLL FREE AT 1-888-344-7233 IN MA, ME, NH, RI & VT, CALL 1-800-922-4455 IN CT 72 HOURS (48 HOURS IN VT AND CT) PRIOR TO EXCAVATION. NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO EXCAVATION. ANY DAMAGE TO UTILITIES WHICH ARE SHOWN ON THE PLANS OR DETAILED BY DIG SAFE SHALL BE THE SITE CONTRACTORS RESPONSIBILITY.
2. CONTRACTOR TO OBTAIN ALL FEDERAL, STATE, AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.
3. CONTRACTOR TO PERFORM DAILY SWEEPING AT CONSTRUCTION ENTRANCES DURING DEMOLITION AND CONSTRUCTION TO PREVENT SEDIMENTS FROM TRACKING ON THE PUBLIC RIGHT-OF-WAY.
4. ANY DAMAGE TO EXISTING BUILDING AND PROPERTY CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) ALL MATERIALS INDICATED ON THE PLANS UNLESS SPECIFIED OTHERWISE HERE IN. R&D MATERIALS TO INCLUDE BUT NOT LIMITED TO PAVEMENT, GRAVEL, CATCH BASINS, MANHOLES, GRATES/FRAMES/COVERS, AND ANY EXCESS SOIL THAT IS NOT INCORPORATED INTO THE WORK.
6. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, ALL DISTURBED AREAS INCLUDING THE CONTRACTOR'S STOCKPILE AND STAGING AREAS WITHIN THE LIMIT OF WORK SHALL BE RESTORED TO MATCH THE DESIGN PLANS.

Dimensional Regulations:

	REQUIRED	PROPOSED
CURRENT ZONING:	INDUSTRIAL (I) PLANNED DEVELOPMENT PARK	INDUSTRIAL (I) PLANNED DEVELOPMENT PARK
MINIMUM LOT AREA:	40,000 SF	752,281 SF (17.21 AC)
MINIMUM FRONTAGE AND LOT WIDTH:	120'	240.82'
MINIMUM FRONT AND CORNER SIDE YARD:	20'	240.82'
MINIMUM SIDE YARD:	30'	54.9' MIN.
MINIMUM REAR YARD:	40'	N/A
MAXIMUM STRUCTURE HEIGHT:	65'	<65'
MAXIMUM BUILDING COVERAGE:	70%	123,200 SF BLDG/ 692,154 SF LOT AREA = 17.8%

Development Data:

BUILDING AREA:	123,200 SF +/-
REQUIIRED PARKING SPACES:	
RESTAURANT & PUBLIC ASSEMBLY:	895 PEOPLE WITH 1 SPACE/4 PEOPLE 895 / 4 = 224 (223.75) PARKING SPACES REQUIRED
OFFICE & RETAIL:	16,500 SF WITH 1 SPACE/ 300 SF 16,500 / 300 = 55 PARKING SPACES REQUIRED
TOTAL REQUIRED PARKING SPACES:	279
PARKING SPACES PROPOSED:	284
ADA SPACES REQUIRED:	7

Lot Area Calculations:

TIVERTON ZONING

ARTICLE II SECTION C(89)
UNSUITABLE LAND = 22,804 SF WETLAND AREA + 37,323 SF AREA WITH >21% SLOPES = 60,127 SF
SUITABLE LAND = 752,281 SF TOTAL AREA - 60,127 SF UNSUITABLE LAND = 692,154 SF

ARTICLE V SECTION 3
a. LOT COVERAGE
PROPOSED LOT COVERAGE = 300,154 SF IMPERVIOUS AREA /692,154 SF = 43.5%

Existing Legend:

NOTE: LEGEND ITEMS ARE STANDARD AND DO NOT APPEAR ON EVERY SHEET.

PROPERTY LINE
SETBACK
ASSESSOR LINE
MINOR CONTOUR (158)
MAJOR CONTOUR (160)
EDGE OF COASTAL FEATURE
200' CRMC JURISDICTION LINE
FENCE
STONE WALL
RETAINING WALL
BUILDING
PAVEMENT AREAS
OVERHEAD WIRES (OHW)
UNDERGROUND ELECTRIC (E)
GAS LINE (G)
WATER LINE (W)
SEWER LINE (S)
WATER VALVE (WV)
GAS VALVE (GV)
UTILITY POLE
GUY WIRE
ELECTRIC MANHOLE (E)
SEWER MANHOLE (S)
DRAINAGE MANHOLE (D)
CATCH BASIN (C)
HYDRANT

Proposed Legend:

NOTE: LEGEND ITEMS ARE STANDARD AND DO NOT APPEAR ON EVERY SHEET.

SILT FENCE
LIMIT OF DISTURBANCE
BUILDING FOOTPRINT
BUILDING OVERHANG
SAW CUT/MATCH AREA
EDGE OF PAVEMENT
CONCRETE SIDEWALK
EDGE OF BERM
EDGE OF CURB
ASPHALT PAVEMENT
CONCRETE (PAD, SIDEWALK)
RETAINING WALL
DRAIN LINE
GRAVITY SEWER LINE (S)
MANHOLE
WATER LINE (W)
WATER LINE (ETC)
ONE FOOT CONTOUR (310)
SPOT ELEVATION (312)
DRAIN FLOW ARROW
SOIL EVALUATION (SEV)
BUILDING ENTRY

Abbreviations:

PR	PROPOSED
EX	EXISTING
AP	ASSESSOR'S PLAT
TYP	TYPICAL
SF	SQUARE FEET
N/F	NOW OR FORMERLY

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 5 2016 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel.401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

KEVIN DEMERS 8557 REGISTERED PROFESSIONAL ENGINEER CIVIL

Environmental Management AUG 2 2016 Office of Water Resources

This regulatory submission set shall not be used for construction purposes unless stamped "issued for Construction" and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	Drawn By: ACA	Design By: MT
6	7-28-2016	Response to Town Comments		LAR
5	7-25-2016	RIDEM PO Response to Comments		KJD
4	7-5-2016	Minor Subdivision Submission	ACA	ACA
3	6-3-2016	RIDEM Preliminary Determination Re-Review	ACA	ACA
2	05-02-2016	RIDEM Preliminary Determination		BJD
1	03-03-2016	Pre-Application Submission		ACA
0	12-23-2015			

Notes

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878

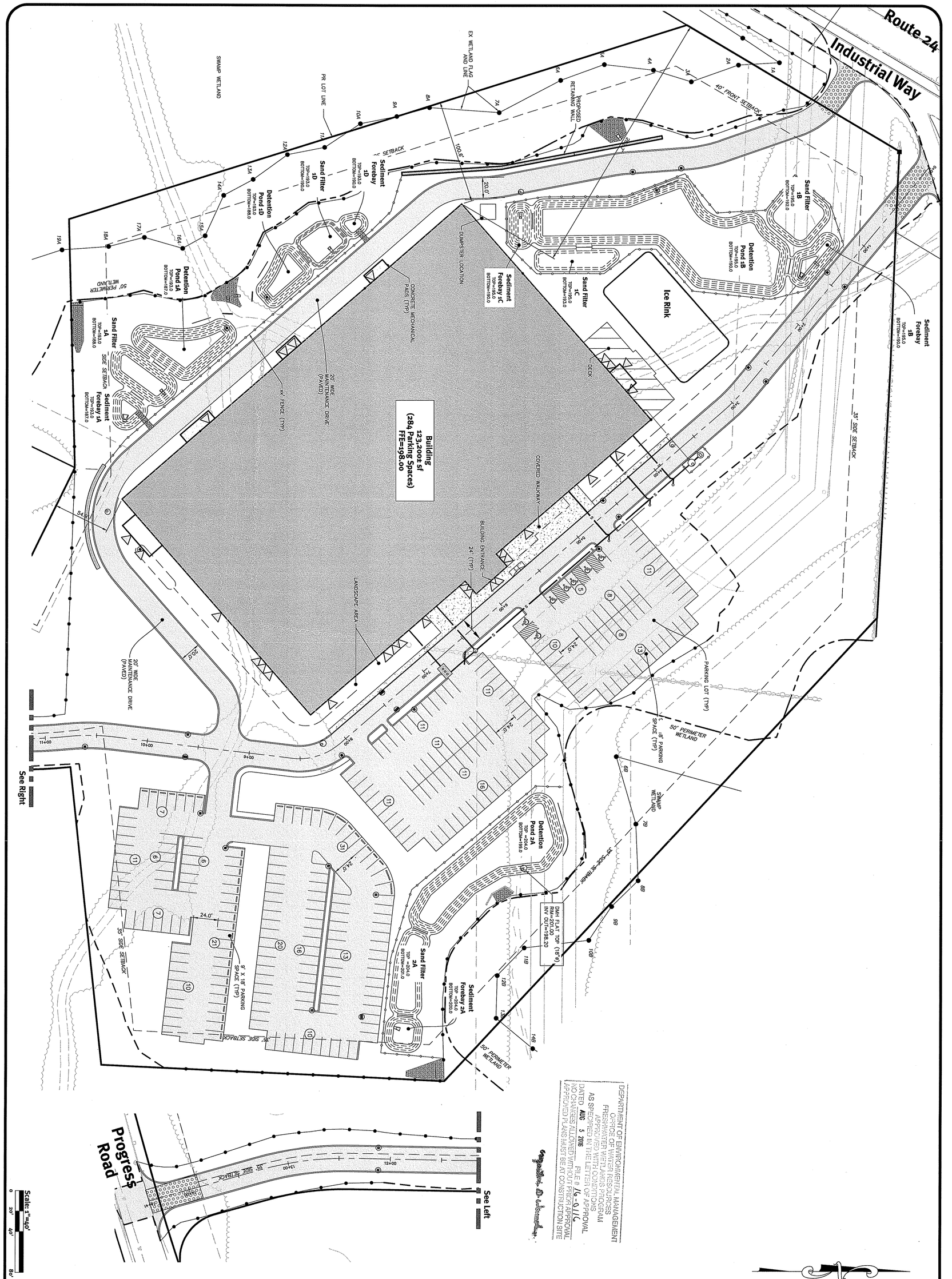
Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

DE Job No: 1895-001-802 Copyright 2016 by DiPrete Engineering Associates, Inc.

SHEET 3 OF 17

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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Environmental Management
AUG 2 2016
Office of Water Resources

KEVIN DEMERS
No. 9837
REGISTERED PROFESSIONAL ENGINEER
STATE OF RHODE ISLAND

SHEET 4 OF 17

Site Layout Plan

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816 in Tiverton, Rhode Island 02878

Applicant

Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

No.	Date	Description	By:
6	7-28-2016	Response to Town Comments	J.A.R.
5	7-19-2016	Response to Comments	ACA
4	7-5-2016	RIDEM PD Response to Comments	K.I.D.
3	6-7-2016	Minor Subdivision Submission	ACA
2	5-13-2016	Commercial/Industrial Development Site Plan/Design Plan Review	ACA
1	05-05-2016	RIDEM Preliminary Determination	B.J.D.
0	11-13-2015	Pre-Application Submission	ACA

Drawn By: ACA | Design By: MT

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Building
123,200± sf
(284 Parking Spaces)
FFE=198.00

Route 24

Industrial Way

Progress Road

50' PERIMETER WETLAND

UP #1 UP #2 UP #3 UP #4 UP #5 UP #6 UP #7 UP #8 UP #9 UP #10 UP #11 UP #12 UP #13 UP #14 UP #15

Scale: 1"=80'
0 40' 80' 160'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Utility Plan - Overall

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

SHEET 5 OF 17

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Environmental Management
AUG 2 2015
Office of Water Resources

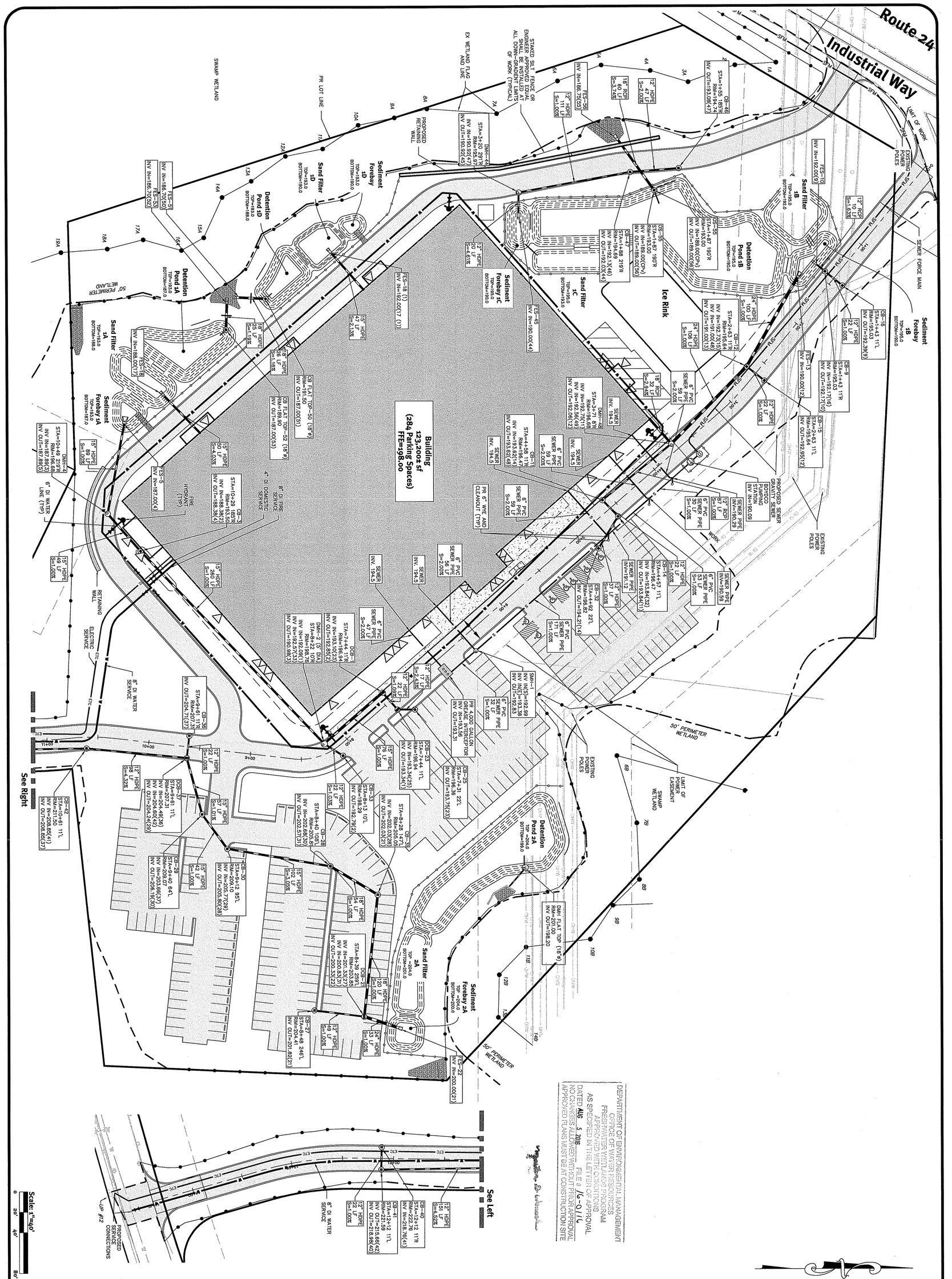
The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
1	10-15-2015	Response to DEM Comments	J.K.B.
2	11-19-2015	Response to Comments	ACA
3	2-2-2016	RIDEM PD Response to Comments	ACA
4	3-23-2016	Response to Comments	ACA
5	5-13-2016	Comments Received on Preliminary Plan Review	ACA
6	05-05-2016	RIDEM Preliminary Determination	ACA
7	07-19-2016	Response to Administrative	ACA

Drawn By: ACA | Design By: MT

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
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NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Environmental Management
AUG 2 2016
Office of Water Resources

KEVIN DEMERS
No. 9585
REGISTERED PROFESSIONAL ENGINEER
STATE OF RHODE ISLAND

Utility Plan

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816 in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

SHEET 6 OF 17

No.	Date	Description	By:
7	8-2-2016	Response to DEM Comments	K.I.D.
6	7-28-2016	Response to Town Comments	J.A.R.
5	7-19-2016	Response to Comments	A.C.A.
4	7-5-2016	RIDOT PD Response to Comments	K.I.D.
3	6-7-2016	Minor Subdivision Submission	A.C.A.
2	5-13-2016	Commercial/Industrial Development Site Plan/Design Plan Review	A.C.A.
1	05-05-2016	RIDEM Preliminary Determination	B.J.D.
0	11-13-2015	Pre-Application Submission	A.C.A.

Drawn By: ACA | Design By: MT

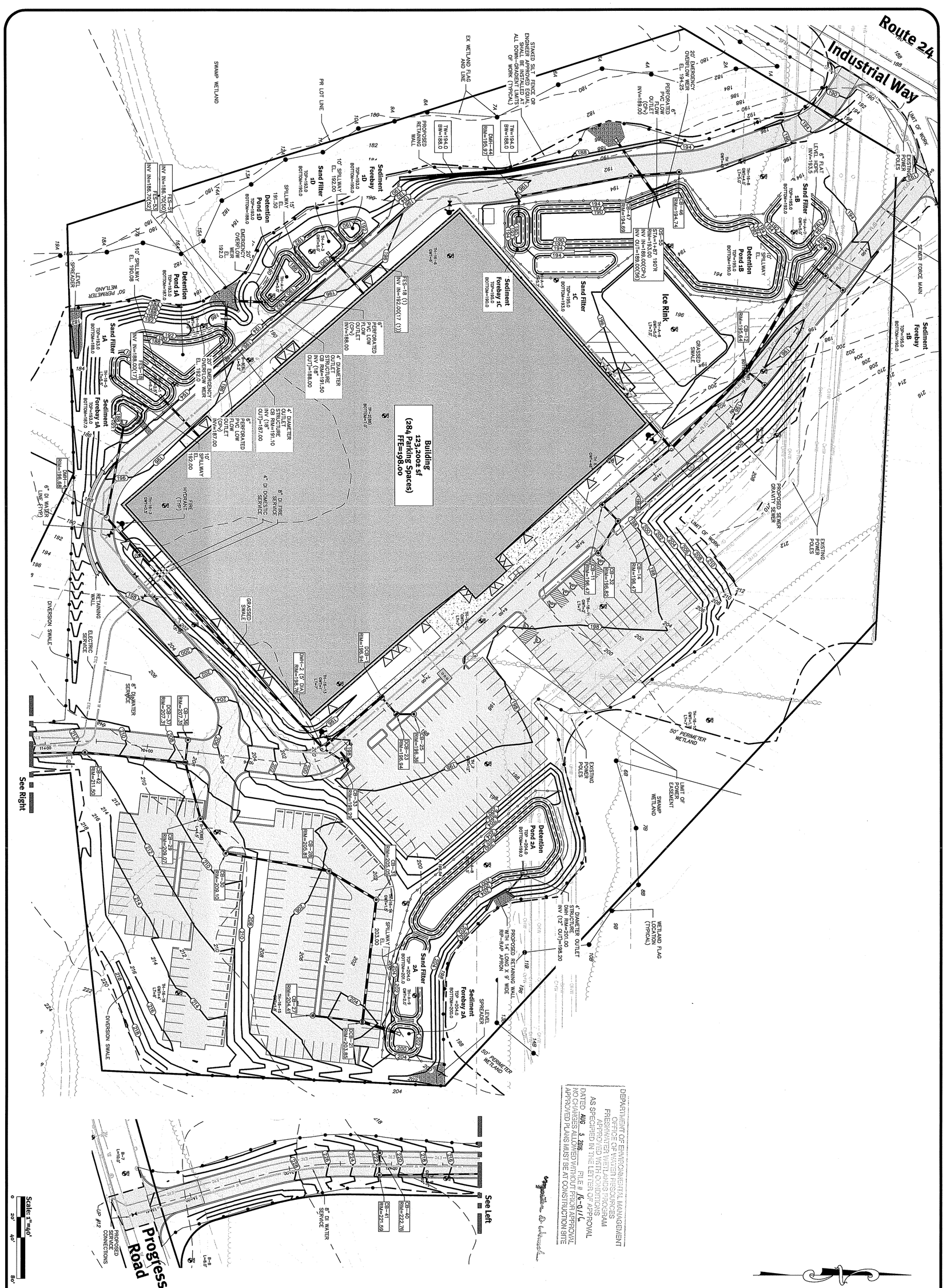
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The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATE: AUG 5 2016 FILE # 06-0176
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
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Grading Plan

Longplex Sports & Family Complex

Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

SHEET 7 OF 17

No.	Date	Description	By:
7	8-3-2016	Response to DEM Comments	K.I.D.
6	7-28-2016	Response to Town Comments	J.A.R.
5	7-19-2016	Response to Comments	ACA
4	7-5-2016	RIDEM PD Response to Comments	K.I.D.
3	6-3-2016	Minor Subdivision Submission	ACA
2	5-13-2016	Commercial/Industrial Development Site Plan/Design Plan Review	ACA
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0	11-13-2015	Pre-Application Submission	ACA

Drawn By: ACA | Design By: MT

This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.

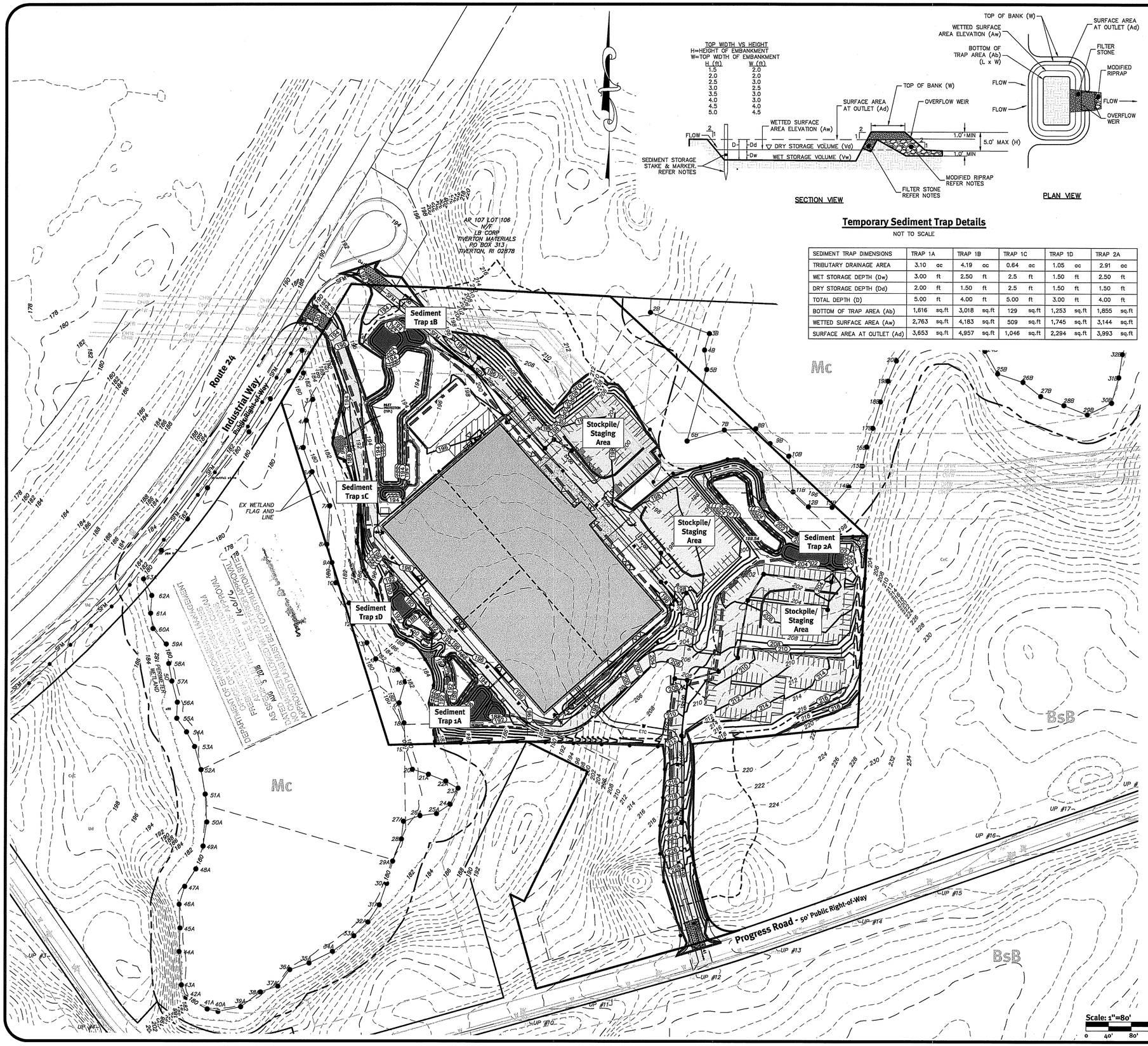
The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

Environmental Management
AUG 2 2016
Office of Water Resources

KEVIN DEMERS
REGISTERED PROFESSIONAL ENGINEER
No. 18,407

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
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DE Job No: 1895-001-B02 Copyright 2016 by DiPrete Engineering Associates, Inc.



Temporary Sediment Trap Details

NOT TO SCALE

SEDIMENT TRAP DIMENSIONS	TRAP 1A	TRAP 1B	TRAP 1C	TRAP 1D	TRAP 2A
TRIBUTARY DRAINAGE AREA	3.10 ac	4.19 ac	0.64 ac	1.05 ac	2.91 ac
WET STORAGE DEPTH (Dw)	3.00 ft	2.50 ft	2.5 ft	1.50 ft	2.50 ft
DRY STORAGE DEPTH (Dd)	2.00 ft	1.50 ft	2.5 ft	1.50 ft	1.50 ft
TOTAL DEPTH (D)	5.00 ft	4.00 ft	5.00 ft	3.00 ft	4.00 ft
BOTTOM OF TRAP AREA (Ab)	1,616 sq.ft	3,018 sq.ft	129 sq.ft	1,253 sq.ft	1,855 sq.ft
WETTED SURFACE AREA (Aw)	2,763 sq.ft	4,183 sq.ft	509 sq.ft	1,745 sq.ft	3,144 sq.ft
SURFACE AREA AT OUTLET (Ad)	3,653 sq.ft	4,957 sq.ft	1,046 sq.ft	2,294 sq.ft	3,993 sq.ft

SEDIMENT TRAP NOTES:

1. THE TEMPORARY SEDIMENT TRAP SHALL MEET ALL REQUIREMENTS FOR TEMPORARY SEDIMENT TRAPS OUTLINED IN THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK (LATEST REVISION) SECTION SIX: SEDIMENT CONTROL MEASURES
2. THE TEMPORARY SEDIMENT TRAP SHALL HAVE AN INITIAL STORAGE VOLUME OF 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER EXCEPT FOR THE EXCAVATED WET STORAGE AREA WHERE SLOPES SHALL NOT EXCEED 1.5:1.
4. THE OUTLET SHALL BE LOCATED AT THE MOST DISTANT HYDRAULIC POINT FROM THE INLET.
5. THE OUTLET CONSISTS OF A PERVIOUS STONE DIKE WITH A CORE OF MODIFIED RIPRAP AND FACED ON THE UPSTREAM SIDE WITH STONE.
6. TEMPORARY SEDIMENT TRAPS MUST OUTLET ONTO STABILIZED GROUND.
7. MAXIMUM HEIGHT OF A TEMPORARY SEDIMENT TRAP EMBANKMENT IS LIMITED TO 5 FEET.
8. SIDE SLOPES OF THE EMBANKMENT SHALL BE 2:1 OR FLATTER.
9. MODIFIED RIPRAP: SHALL MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.10.03.2.
10. FILTER STONE: SHALL MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.01.03 TABLE I, COLUMN V FILTER STONE.

SEDIMENT TRAP INSPECTION, MAINTENANCE, AND REMOVAL REQUIREMENTS:

1. INSTALL "SEDIMENT STORAGE" STAKE WITH A MARKER AT ONE HALF OF THE WET STORAGE VOLUME.
2. INSPECT THE TEMPORARY SEDIMENT TRAP AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.25 INCH OR GREATER.
3. CHECK THE OUTLET TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT.
4. CHECK FOR SEDIMENT ACCUMULATION AND FILTRATION PERFORMANCE.
5. WHEN SEDIMENTS HAVE ACCUMULATED TO ONE HALF THE MINIMUM REQUIRED VOLUME OF THE WET STORAGE, DEWATER THE TRAP AS NEEDED, REMOVE SEDIMENTS AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS.
6. DISPOSE OF THE SEDIMENT REMOVED FROM THE BASIN IN A SUITABLE AREA.
7. THE TEMPORARY SEDIMENT TRAP MAY BE REMOVED AFTER THE CONTRIBUTING DRAINAGE AREA IS STABILIZED.

INSTALLATION/STABILIZATION NOTES:

1. CLEAR, GRUB AND STRIP ANY VEGETATION AND ROOT MAT FROM ANY PROPOSED EMBANKMENT AND OUTLET AREA.
2. REMOVE STONES AND ROCKS WHOSE DIAMETER IS GREATER THAN THREE (3) INCHES AND OTHER DEBRIS.
3. EXCAVATE WET STORAGE AND CONSTRUCT THE EMBANKMENT AND/OR OUTLET AS NEEDED TO ATTAIN THE NECESSARY STORAGE REQUIREMENTS.
4. USE ONLY FILL MATERIAL FOR THE EMBANKMENT THAT IS FREE FROM EXCESSIVE ORGANICS, DEBRIS, LARGE ROCKS (OVER SIX (6) INCHES) OR OTHER UNSUITABLE MATERIALS. COMPACT THE EMBANKMENT IN 9-INCH LAYERS BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED
5. STABILIZE THE EARTHEN EMBANKMENT USING ANY OF THE FOLLOWING MEASURES, SEEDING FOR TEMPORARY VEGETATION COVER; SEEDING FOR PERMANENT VEGETATIVE COVER; OR SLOPE PROTECTION, IMMEDIATELY AFTER INSTALLATION
6. ALL UPGRADIENT DISTURBED AREAS SHALL BE STABILIZED BEFORE REMOVING SEDIMENTS FROM THE TEMPORARY TRAPS AND PREPARING THE AREAS FOR PERMANENT BMPs. FOLLOWING STABILIZATION, THE TEMPORARY SEDIMENT TRAPS SHALL BE OVER-DUG TO ENSURE REMOVAL OF ALL COLLECTED SEDIMENTS.
7. PRIOR TO BACKFILLING OF SAND FOR THE SAND FILTERS WHERE APPLICABLE, THE INFILTRATION RATES SHALL BE TESTED AND COMPARED TO THE DESIGN RATES AT EACH LOCATION. IF THE INFILTRATION RATES DO NOT MEET THOSE DESIGNED, FURTHER EXCAVATION AND BACKFILLING OF THE SAND FILTER AREAS SHALL BE PERFORMED AND AREAS RETESTED UNTIL APPROPRIATE INFILTRATION RATES ARE ARCHIEVED.

General Notes:

1. ALL EROSION CONTROL, DIVERSIONS, TEMPORARY SEDIMENTATION TRAP, ETC. SHALL BE INSTALLED PER THE RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL LATEST EDITION.
2. SILTFENCE/ STRAW WATTLE MUST BE INSTALLED AROUND ALL PROPOSED TREATMENT AREAS. NO CONSTRUCTION VEHICLES SHALL ENTER THESE STAKED AREAS.
3. SILTFENCE (OR AN APPROVED EROSION CONTROL DEVICE) AND DIVERSIONS SHALL BE USED TO CONTROL RUNOFF DURING CONSTRUCTION OF THE PROPOSED PAVEMENT AREAS. AFTER INITIAL PAVEMENT GRADING IS COMPLETE AND THE PERMANENT DRAINAGE INFRASTRUCTURE HAS BEEN CONSTRUCTED, THE DRAINAGE NETWORK SHALL BE BROUGHT ONLINE AND THE DIVERSIONS SHALL BE DECONSTRUCTED.
4. ONCE THE SEDIMENTATION TRAPS ARE NO LONGER REQUIRED AND ALL TRIBUTARY AREAS HAVE BEEN STABILIZED, THE AREAS SHALL BE BROUGHT TO FINAL DESIGN GRADES.
5. INLET PROTECTION SHALL BE INSTALLED ON ALL CATCH BASINS ONCE CONSTRUCTED.
6. SEE SECTION 1.2 OF THE RI SESC HANDBOOK FOR SEQUENCE OF CONSTRUCTION ACTIVTY.
7. SEE SECTION 2.2 OF THE RI SESC HANDBOOK FOR PROJECT PHASING.
8. CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH APPROVAL FROM DESIGN ENGINEER.
9. DETENTION PONDS & SAND FILTER AREAS SHALL BE STAKED OFF, DEMARCATED AND PROTECTED FROM CONSTRUCTION TRAFFIC DURING ALL CONSTRUCTION PHASES.
10. REFER DETAIL SHEETS FOR FURTHER INFORMATION

Soil Erosion Control Legend:

- DIVERSION RUNOFF CONVEYANCE MEASURE
- TRIBUTARY DRAINAGE AREA
- TEMPORARY SEDIMENT TRAP
- COMPOST FILTER SOCKS OR APPROVED EQUAL EROSION CONTROL MEASURE
- CONSTRUCTION ENTRANCE (RI STD 9.9.0)

Construction Phasing

Phase IA– INSTALL EROSION CONTROL SILT FENCE & STONE CONSTRUCTION ENTRANCE.

Phase IB – INSTALL TEMPORARY SEDIMENTATION TRAPS.

Phase IC– CONSTRUCT PROPOSED DIVERSIONS

Phase IIA– CLEAR AND GRUB CONSTRUCTION AREAS. CONSTRUCT PROPOSED BUILDING AND PAVEMENT AREAS & INSTALL UTILITIES. INSTALL DRAINAGE & SEWER NETWORKS WORKING FROM THE DOWN GRADIENT END UP TO THE START OF NETWORKS.

Phase IIB– STABILIZE ALL DISTURBED AREAS, DE–CONSTRUCT DIVERSIONS AND TEMPORARY SEDIMENTATION TRAPS.

Phase III– MAINTAIN & RE–INSTALL EROSION & SEDIMENT CONTROLS AT ALL DOWN GRADIENT LIMITS OF WORK.

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AUG 2 2016
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No.	Date	Description	Drawn By:	Design By:
6	7-28-2016	Response to Town Comments	JAR	
5	7-12-2016	RIDEM 401 Assistance Comments	KVD	
4	6-1-2016	Minor Subdivision Submission	AJA	
3	5-5-2016	RIDEM Preliminary Determination	AJA	
2	05-05-2016	Pre-Application Submission	BJD	
1	11-13-2015	Pre-Application Submission	AJA	
0	10-5-2015	Pre-Application Submission	AJA	

Soil Erosion & Sediment Control Plan

Longplex Sports & Family Complex

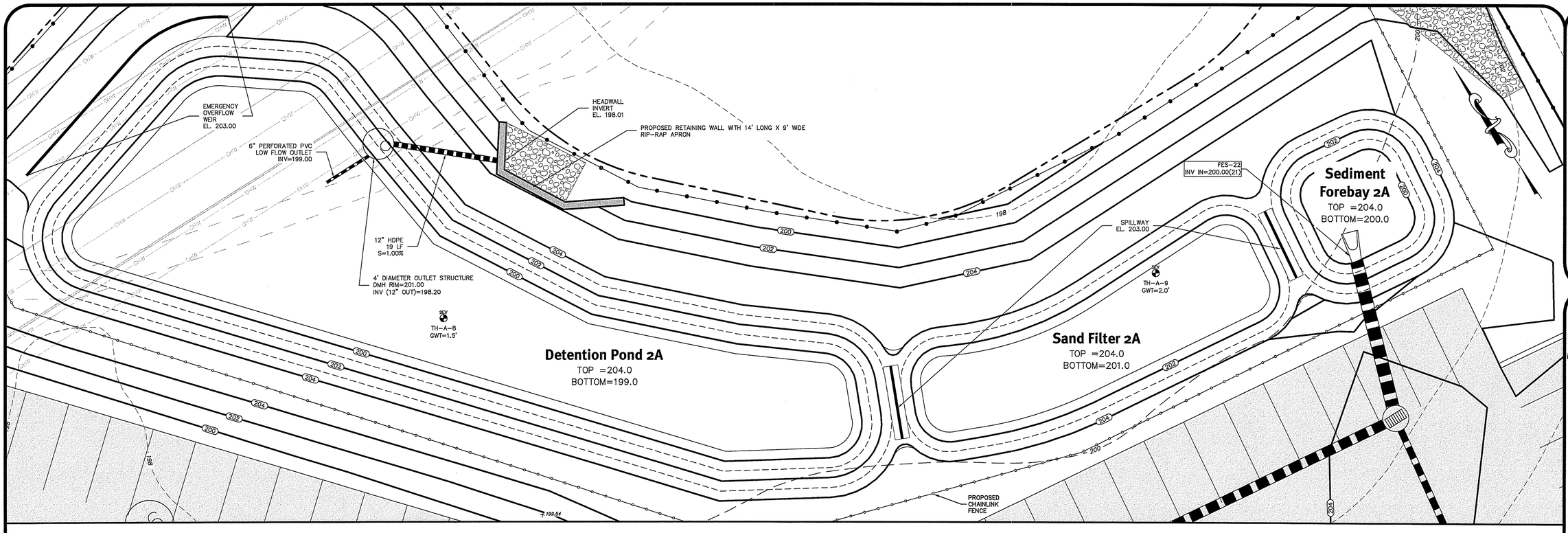
Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

DE Job No: 1895-001-802 Copyright 2016 by DiPrete Engineering Associates, Inc.

SHEET 8 OF 17

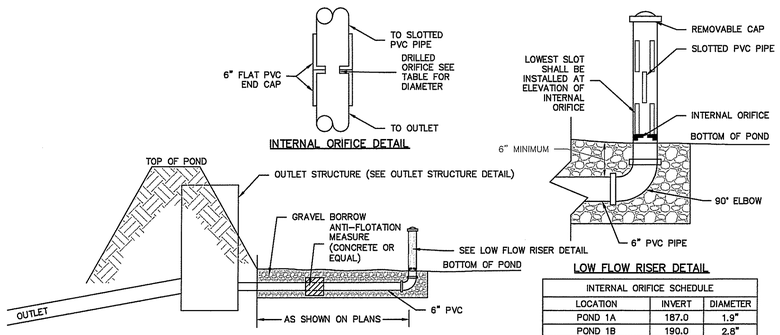
I:\Vemalin\projects\1895-001 tiverton industrial park\autocad drawing\1895-001-b02-desn.dwg Plotted: 7/28/2016



Detention Pond 2A

Scale: 1"=10'

0 5' 10' 20'

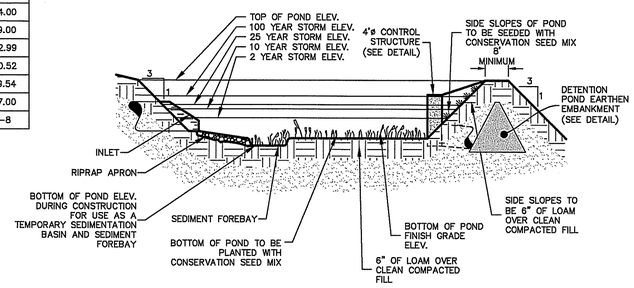


INTERNAL ORIFICE SCHEDULE		
LOCATION	INVERT	DIAMETER
POND 1A	187.0	1.9"
POND 1B	190.0	2.8"
POND 1D	188.0	1.2"
POND 2A	199.0	1.8"

Low Flow (CPv) Outlet

NOT TO SCALE

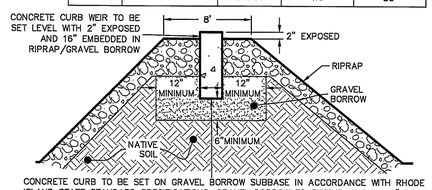
DESCRIPTION	POND 2A
TOP OF POND ELEVATION	204.00
BOTTOM OF POND	199.00
100 YEAR STORM ELEVATION	202.99
10 YEAR STORM ELEVATION	200.52
1 YEAR STORM ELEVATION	199.54
SEASONAL HIGH GWT ELEVATION	197.00
SOIL EVALUATION	A-B



Detention Pond Typical Cross Section

NOT TO SCALE

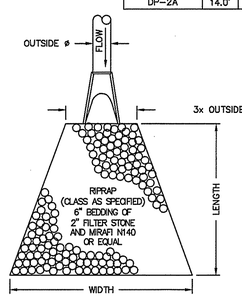
LOCATION	TOP OF POND ELEV.	WEIR INVERT	WEIR DEPTH	WEIR LENGTH
FBAY-1B	195.00	194.00	1.0	10'
SF-1B	195.00	194.75	0.25	20'
FB-1C	195.00	194.00	1.0	10'
SF-1C	195.00	194.00	1.0	10'
FBAY-2A	204.00	203.00	1.0	10'
SF-2A	204.00	203.00	1.0	10'
DP-2A	204.00	203.00	1.0	50'



Curb Outlet Weir Cross Section

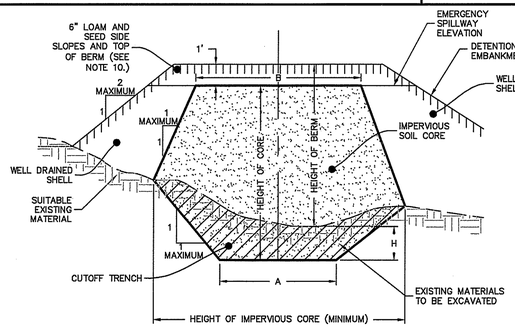
NOT TO SCALE

FLARED END	LENGTH	WIDTH	CLASS
DP-1B	21.0'	13.0'	R-3
DP-2A	14.0'	9.0'	R-2



Riprap Apron/ FE Detail

NOT TO SCALE



BERM HEIGHT (FT)	TOP WIDTH OF CORE – B (FT)
0–6.5	8.2
6.6–9.8	9.2
9.9–13.1	9.8
13.2–16.4	10.8
16.5–19.7	11.5

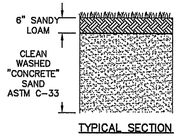
NOTES:

1. IMPERVIOUS SOIL CORE TO BE PROVIDED FOR ALL DETENTION POND EMBANKMENTS.
2. IMPERVIOUS SOIL CORE TO BE CONSTRUCTED OF MATERIAL CONSISTING OF SILT OR <200 SOIL.
3. WELL DRAINED SHELL TO BE CONSTRUCTED OF GRAVEL AND/OR SAND WITH LESS THAN 5% PASSING THE #200 SIEVE.
4. MINIMUM DEPTH OF CUTOFF TRENCH (H) SHALL BE 3/4 OF THE TOTAL BERM HEIGHT.
5. THE IMPERVIOUS CORE AT A MINIMUM SHALL EXTEND UP BOTH ABUTMENTS TO THE EMERGENCY SPILLWAY ELEVATION.
6. THE MINIMUM BOTTOM WIDTH (A) SHALL BE 5'-8', AND WIDE ENOUGH TO PERMIT OPERATION OF COMPACTION EQUIPMENT.
7. SIDE SLOPES OF THE TRENCH SHALL BE NO STEEPER THAN 1:1.
8. IF BEDROCK IS ENCOUNTERED BELOW THE DAM THE CUT OFF TRENCH CAN BE REDUCED TO 1'x1' (AxH)
9. COMPACTION REQUIREMENTS FOR THE SHELL AND IMPERVIOUS CORE TO BE 95% OF THE MODIFIED PROCTOR PER ASTM D1557. ALL FILL TO BE PLACED IN LIFTS NOT EXCEEDING 12".
10. SIDE SLOPE OF DETENTION POND EMBANKMENT TO BE 2:1 MAXIMUM. IF SIDE SLOPES ARE STEEPER THAN 3:1, SLOPE PROTECTION MUST BE UTILIZED ON POND EMBANKMENT. THIS INCLUDES, BUT NOT LIMITED TO, RIPRAP AND EROSION CONTROL MATS.
11. THE IMPERVIOUS CORE SHALL BE KEPT FREE FROM STANDING WATER DURING THE BACKFILL OPERATION.
12. ALL EMBANKMENTS TO BE DESIGNED BY A GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION. ALL EMBANKMENT INSTALLATIONS TO BE SUPERVISED BY A GEOTECHNICAL ENGINEER.

Detention Pond Earthen Embankment

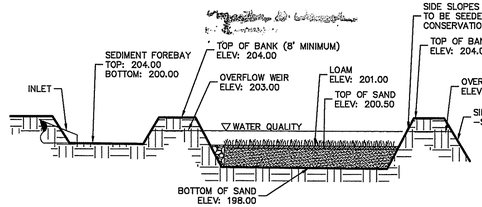
NOT TO SCALE

DESCRIPTION	SF-2A
AVAILABLE STORAGE ELEVATION	204.00
100 YEAR STORM ELEVATION	203.61
10 YEAR STORM ELEVATION	203.37
1 YEAR STORM ELEVATION	203.06
OUTLET ELEVATION	203.00
TOP OF GRASS	201.00
SAND & LOAM DEPTH	3.0
BOTTOM OF SAND LAYER	198.00
SEASONAL HIGH GWT ELEVATION	198.00
SOIL EVALUATION	16–14



TYPICAL SECTION

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED: AUG 5 2016 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



Sand Filter (Infiltration)

NOT TO SCALE

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AUG 2 2016
Office of Water Resources

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6	7-28-2016	Response to Town Comments	LAB
5	7-19-2016	Response to Comments	ACA
4	7-1-2016	RIDEM RFI Response to Comments	KJD
3	6-15-2016	RIDEM RFI Response to Comments	ACA
2	5-13-2016	Comments/Submittal Requirement Site Plan Review	KJD
1	05-09-2016	RIDEM Preliminary Determination	KJD
0	03-25-2016	Initial Submission	ACA

Design By: MT
Drawn By: ACA

Details - 1

Longplex Sports & Family Complex

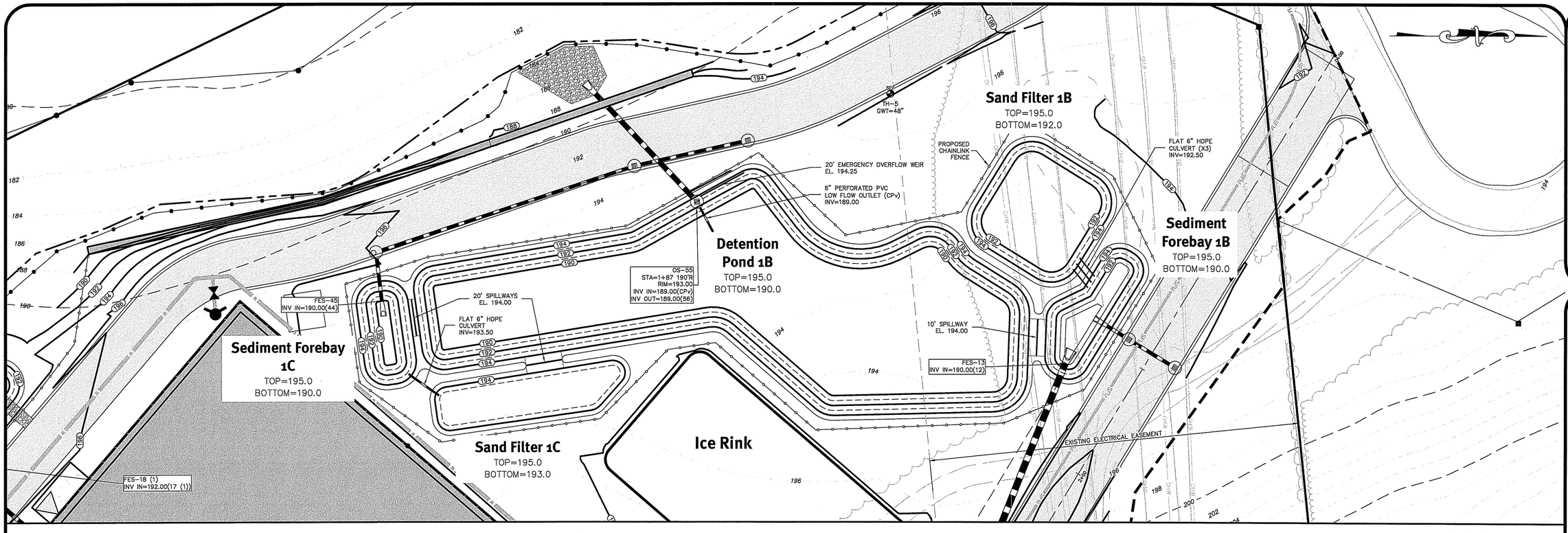
Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
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Applicant
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SHEET 9 OF 17

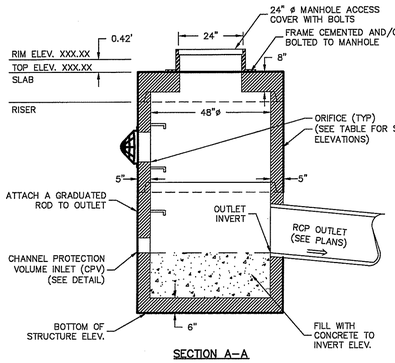
DE Job No: 1895-001-602 Copyright 2016 by DiPrete Engineering Associates, Inc.

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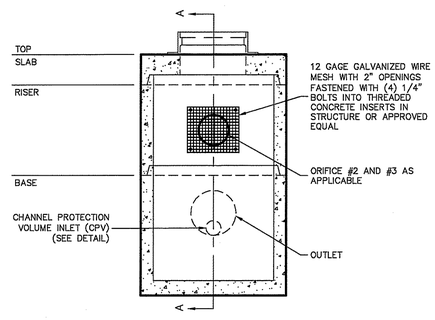
Detention Pond 1B

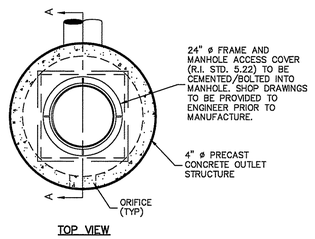
Scale: 1"=20'
0 10' 20' 40'



SECTION A-A

	POND 1A	POND 1B	POND 1D	POND 2A
ORIFICE #1	6", 190.80	6", 190.80	6", 190.60	6"(x2), 199.60
OUTLET	18", 187.00	18", 189.15	18", 188.00	12", 198.20
OPENING,RIM	24", 191.10	18", 193.00	18", 191.50	RIM=201.00 (NO OPENING)





TOP VIEW

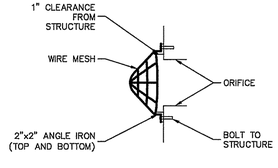
4' Diameter Outlet Structure

NOT TO SCALE

NOTE:
* LENGTHS AS SPECIFIED ON SITE PLANS

Level Spreader

NOTE:
ALL 2" WEEP HOLES USED TO PLACE STRUCTURE MUST BE FILLED WITH CONCRETE.



TRASH RACK DETAIL

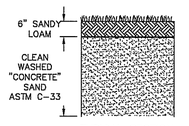
DESCRIPTION	1B
TOP OF POND ELEVATION	195.00
BOTTOM OF POND	190.00
100 YEAR STORM ELEVATION	193.71
10 YEAR STORM ELEVATION	191.88
1 YEAR STORM ELEVATION	190.68
SEASONAL HIGH GWT ELEVATION	189.00
SOIL EVALUATION	16-7

Detention Pond Typical Cross Section

NOT TO SCALE

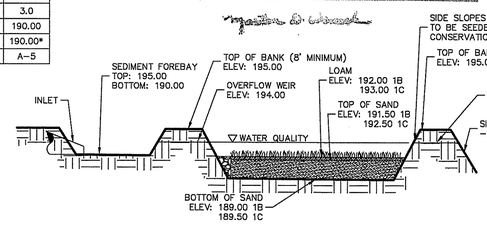
DESCRIPTION	SF-1B	SF-1C
AVAILABLE STORAGE ELEVATION	195.00	195.00
100 YEAR STORM ELEVATION	194.73	194.17
10 YEAR STORM ELEVATION	194.47	194.08
1 YEAR STORM ELEVATION	194.15	193.81
OUTLET ELEVATION	194.75	194.00
TOP OF GRASS	192.00	193.00
SAND & LOAM DEPTH	3.0	3.0
BOTTOM OF SAND LAYER	189.00	190.00
SEASONAL HIGH GWT ELEVATION	189.00	190.00*
SOIL EVALUATION	A-7	A-5

*LEDGE ELEVATION



TYPICAL SECTION

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7	8-2-2016	Response to DEM Comments	K.J.D.
6	7-29-2016	Response to Town Comments	A.C.A.
5	7-7-2016	RIDEM PO Response to Comments	K.J.D.
4	6-15-2016	Response to Town Comments	A.C.A.
3	5-13-2016	Revised Grading Plan, Added Sediment Forebay	A.C.A.
2	05-09-2016	RIDEM Preliminary Determination	B.J.D.
1	01-15-2015	Pre-Application Submission	A.C.A.

Drawn By: ACA | Design By: MT

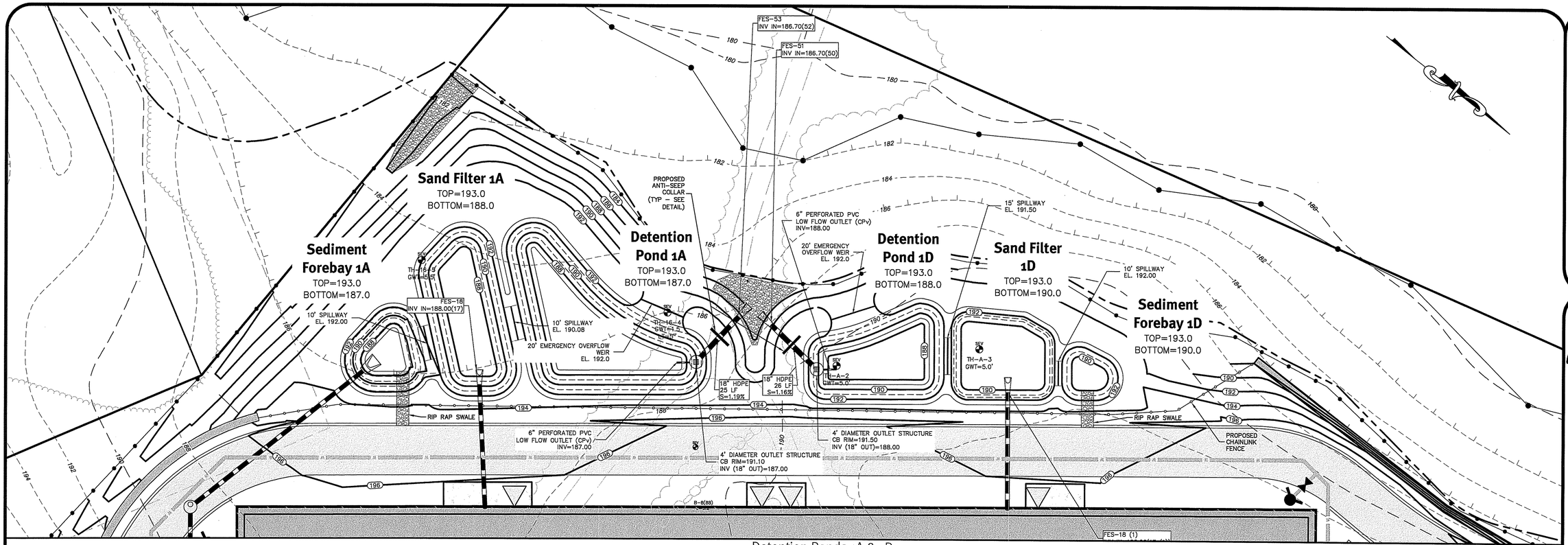
Details - 2
Longsplex Sports & Family Complex
Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island co8p8

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island co8a2

DE Job No: 1895-001-802 Copyright 2016 by DiPrete Engineering Associates, Inc.

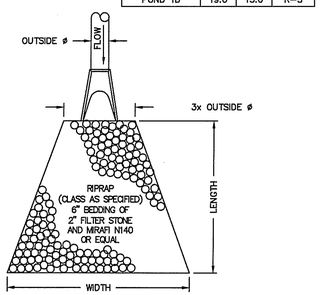
SHEET 10 OF 17

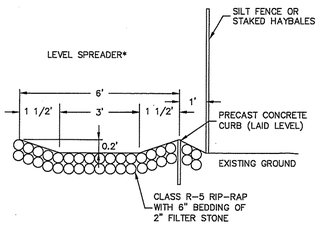
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Detention Ponds 1A & 1D

FLARED END	LENGTH	WIDTH	CLASS
POND 1A	26.0	15.0	R-4
POND 1D	19.0	13.0	R-3

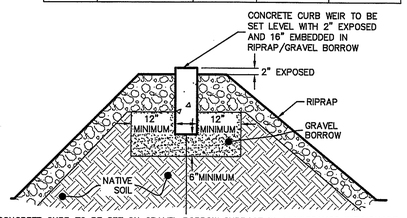




NOTE:
* LENGTHS AS SPECIFIED ON SITE PLANS

Level Spreader
NOT TO SCALE

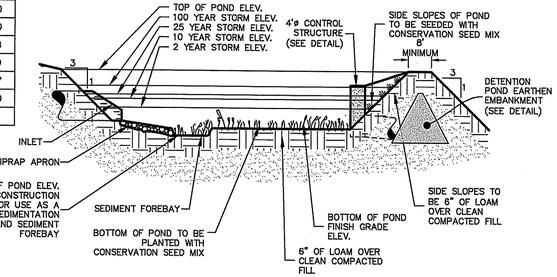
LOCATION	TOP OF POND ELEV.	WEIR INVERT	WEIR DEPTH	WEIR LENGTH
FBAY-1A	193.00	192.00	1.0	10'
SF-1A	193.00	192.00	1.0	10'
FBAY-1D	193.00	192.00	1.0	10'
SF-1D	193.00	191.40	1.6	15'



CONCRETE CURB TO BE SET ON GRAVEL BORROW SUBBASE IN ACCORDANCE WITH RHODE ISLAND STATE STANDARD SPECIFICATIONS. GRAVEL BORROW TO EXTEND MINIMUM 6" BELOW EXISTING TOP /SUBSOIL. ALL BACKFILL SHALL BE FREE FROM ORGANIC MATERIALS. ALL MATERIAL PLACED BELOW CURBING SHALL BE COMPACTED TO 95% DENSITY.

Curb Outlet Weir Cross Section
NOT TO SCALE

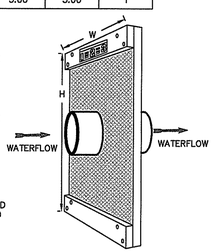
DESCRIPTION	1A	1D
TOP OF POND ELEVATION	193.00	193.00
BOTTOM OF POND	187.00	188.00
100 YEAR STORM ELEVATION	191.89	191.98
10 YEAR STORM ELEVATION	191.45	191.59
1 YEAR STORM ELEVATION	190.37	190.57
SEASONAL HIGH GWT ELEVATION	184.50	185.50
SOIL EVALUATION	16-4	A-2



Detention Pond Typical Cross Section
NOT TO SCALE

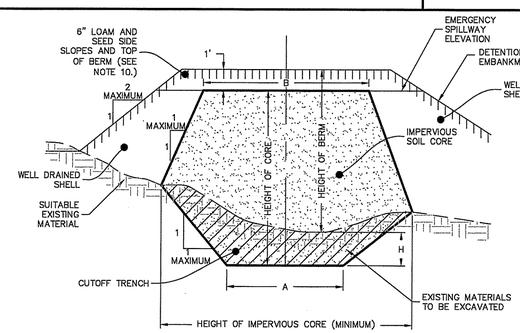
LOCATION	WIDTH	HEIGHT	QUANTITY
DETENTION POND 1A	4.00	3.00	1
DETENTION POND 1D	3.00	3.00	1
DETENTION POND 1B	3.00	3.00	1
DETENTION POND 2A	3.00	3.00	1

INSTALLATION NOTES:
1. UNROLL THE ANTI-SEEP AND ATTACH THE BOARDS TO THE EDGES TO FORM A SQUARE. (USE THE BOARDS AND NAILS PROVIDED.)(4'X4' AND LARGER)
2. CUT A ROUND HOLE IN THE CENTER OF THE RUBBER THAT IS SMALLER THAN THE PIPE SIZE (APPROX. 25% SMALLER). THIS WILL ALLOW THE RUBBER TO STRETCH OVER THE PIPE WHEN THE ANTI-SEEP IS INSTALLED ON THE PIPE. THIS SHOULD PROVIDE A NEARLY WATERPROOF SEAL BETWEEN THE PIPE AND THE ANTI-SEEP.
3. SLIP THE PIPE THROUGH THE ANTI-SEEP. INSPECT THE SEAL BETWEEN THE PIPE AND THE ANTI-SEEP, CAREFULLY BACKFILL AND COMPACT WITH SUITABLE SOIL.



NOTE:
AGRI DRAIN CORP. OR EQUAL

Anti-Seep Collar
NOT TO SCALE

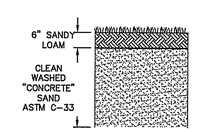


BERM HEIGHT (FT)	TOP WIDTH OF CORE - B (FT)
0-6.5	8.2
6.6-9.8	9.2
9.9-13.1	9.8
13.2-16.4	10.8
16.5-19.7	11.5

NOTES:
1. IMPERVIOUS SOIL CORE TO BE PROVIDED FOR ALL DETENTION POND EMBANKMENTS.
2. IMPERVIOUS SOIL CORE TO BE CONSTRUCTED OF MATERIAL CONSISTING OF SILT OR <200 SOIL.
3. WELL DRAINED SHELL TO BE CONSTRUCTED OF GRAVEL AND/OR SAND WITH LESS THAN 5% PASSING THE #200 SIEVE.
4. MINIMUM DEPTH OF CUTOFF TRENCH (H) SHALL BE 3/4 OF THE TOTAL BERM HEIGHT.
5. THE IMPERVIOUS CORE AT A MINIMUM SHALL EXTEND UP BOTH ABUTMENTS TO THE EMERGENCY SPILLWAY ELEVATION.
6. THE MINIMUM BOTTOM WIDTH (A) SHALL BE 5'-8', AND WIDE ENOUGH TO PERMIT OPERATION OF COMPACTION EQUIPMENT.
7. SIDE SLOPES OF THE TRENCH SHALL BE NO STEEPER THAN 1:1.
8. IF BEDROCK IS ENCOUNTERED BELOW THE DAM THE CUT OFF TRENCH CAN BE REDUCED TO 1'x1' (AxH)
9. COMPACTION REQUIREMENTS FOR THE SHELL AND IMPERVIOUS CORE TO BE 95% OF THE MODIFIED PROCTOR PER ASTM D1557. ALL FILL TO BE PLACED IN LIFTS NOT EXCEEDING 12".
10. SIDE SLOPE OF DETENTION POND EMBANKMENT TO BE 2:1 MAXIMUM. IF SIDE SLOPES ARE STEEPER THAN 3:1, SLOPE PROTECTION MUST BE UTILIZED ON POND EMBANKMENT. THIS INCLUDES, BUT NOT LIMITED TO, RIPRAP AND EROSION CONTROL MATS.
11. THE IMPERVIOUS CORE SHALL BE KEPT FREE FROM STANDING WATER DURING THE BACKFILL OPERATION.
12. ALL EMBANKMENTS TO BE DESIGNED BY A GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION. ALL EMBANKMENT INSTALLATIONS TO BE SUPERVISED BY A GEOTECHNICAL ENGINEER.

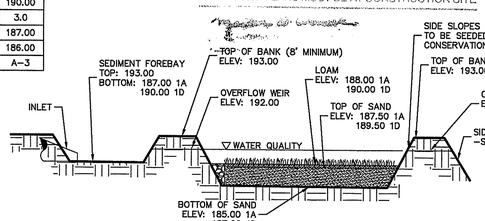
Detention Pond Earthen Embankment
NOT TO SCALE

DESCRIPTION	SF-1A	SF-1D
AVAILABLE STORAGE ELEVATION	193.00	193.00
100 YEAR STORM ELEVATION	191.93	192.03
10 YEAR STORM ELEVATION	191.49	191.71
1 YEAR STORM ELEVATION	190.37	191.64
OUTLET ELEVATION	190.08	191.50
TOP OF GRASS	188.00	190.00
SAND & LOAM DEPTH	3.0	3.0
BOTTOM OF SAND LAYER	185.00	187.00
SEASONAL HIGH GWT ELEVATION	179.00	186.00
SOIL EVALUATION	16-5	A-3



TYPICAL SECTION

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 5 2016 FILE # /6-0//6
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



Sand Filter (Infiltration)
NOT TO SCALE

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

KEVIN DEMERS
No. 8557
REGISTERED PROFESSIONAL ENGINEER
CIVIL

Environmental Management
AUG 2 2016
Office of Water Resources

This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By
6	7-26-2016	Response to Town Comments	LEA
5	7-19-2016	Response to Comments	AJC
4	7-1-2016	RIDEM PD Response to Comments	KJD
3	6-13-2016	RIDEM Preliminary Determination	AJC
2	5-13-2016	Design Updates per Stantec Peer Review	AJC
1	05-02-2016	RIDEM Preliminary Determination	BJD
0	12-21-2015	Preliminary Submission	BJD

Design By: MT
Drawn By: ACA

Details - 3

Longplex Sports & Family Complex
Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
736 Aquidneck Avenue, Middletown Rhode Island 02842

SHEET 11 OF 17

DE Job No: 1895-001-802 Copyright 2016 by DiPrete Engineering Associates, Inc.

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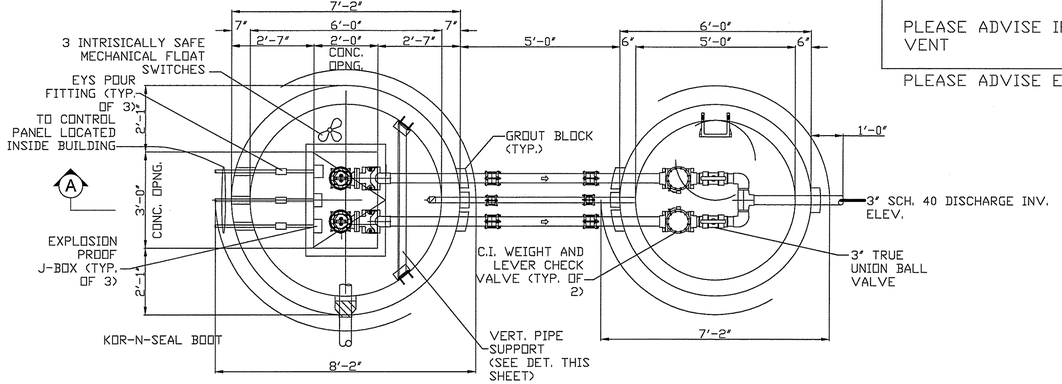
PRELIMINARY DRAWING BOYDCO 603A2S

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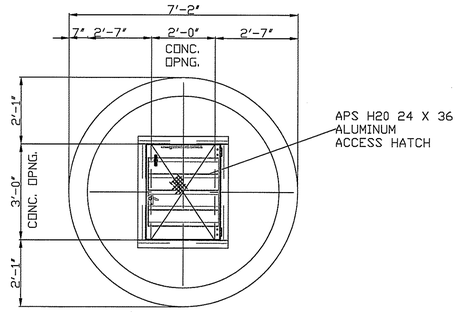
PLEASE CONFIRM INLET ORIENTATION

PLEASE ADVISE IF YOU REQUIRE A VENT

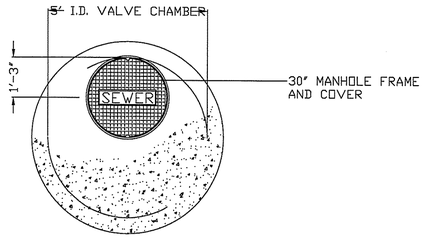
PLEASE ADVISE ELEVATIONS



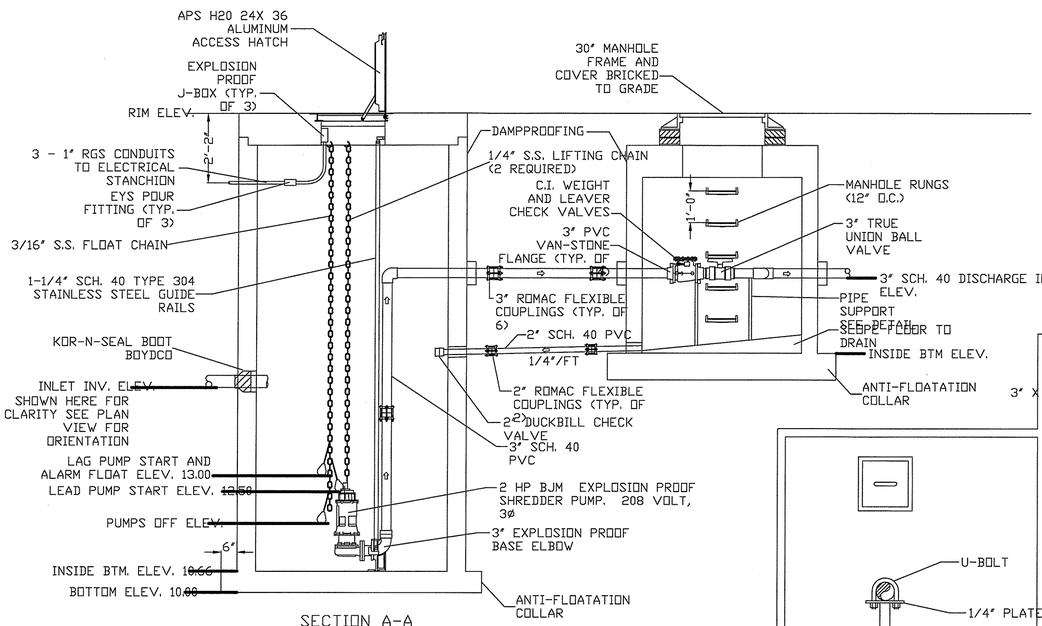
PLAN VIEW



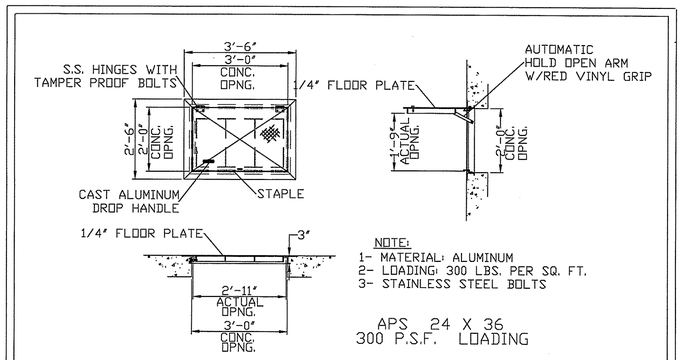
PLAN VIEW
@ ACCESS HATCH



PLAN VIEW AT
VALVE CHAMBER
TOP SLAB

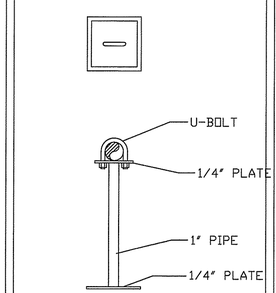


SECTION A-A

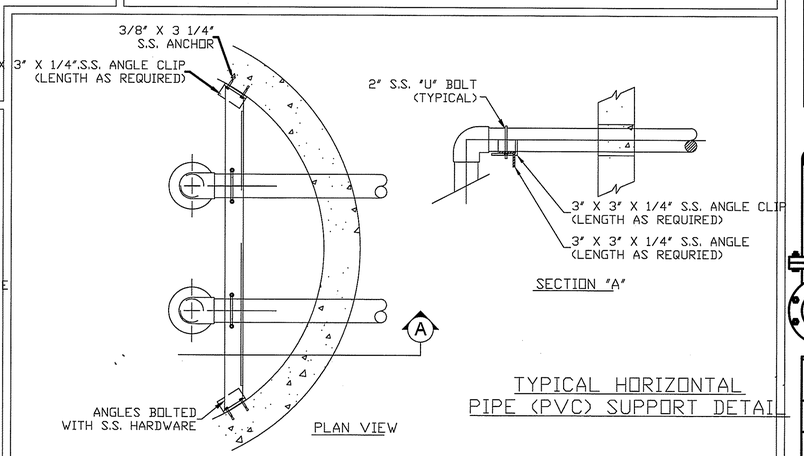


NOTE:
1- MATERIAL: ALUMINUM
2- LOADING: 300 LBS. PER SQ. FT.
3- STAINLESS STEEL BOLTS

APS 24 X 36
300 P.S.F. LOADING



3" S.S. PIPE SUPPORT



TYPICAL HORIZONTAL
PIPE (PVC) SUPPORT DETAIL

ELEVATION KEY FOR WET WELL AND VALVE VAULT

RIM ELEV.

GRADE ELEV.

INLET INV. ELEV.

DISCHARGE ELEV.

WET WEL INSIDE FLOOR ELEV.

VALVE PIT INSIDE FLOOR ELEV.

PUMP(S) OFF FLOAT ELEV.

LEAD PUMP ON ELEV.

HIGH WATER ALARM ELEV.

LAG PUMP ON ELEV.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 5 2016 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

REVISIONS

BOYDCO
101 COMMERCIAL WAY
EAST PROVIDENCE, RI 02914

JOB TITLE:
LONGPLEX SPORTS FACILITY
~~PUMPING STATION~~

SHEET DESCRIPTION:
PUMP STATION PLANS, ELEVATIONS & DETAILS

DRAWN BY:	APPROVED BY:	SCALE:
CB		NONE
DATE:		DRAWING NO:

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

KEVIN DEMERS
No. 8567
REGISTERED PROFESSIONAL ENGINEER
CIVIL

Environmental Management
AUG 2 2016
Office of Water Resources

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The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
6	7/26/2016	Response to Town Comments	LHB
5	7/19/2016	Response to Comments	ACA
4	7/1/2016	RIDEM PD Response to Comments	KMD
3	5/13/2016	RIDEM Preliminary Determination	ACA
2	5/13/2016	Comm. Scheduled Development Re-Design Plan Review	ACA
1	05/02/2016	RIDEM Preliminary Determination	BJD
0	01/15/2015	Pre-Application Submission	ACA

Drawn By: ACA | Design By: MT

Details - 4

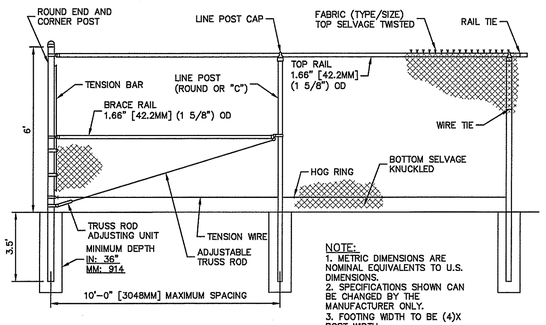
Longplex Sports & Family Complex
Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island o28y8

Applicant
Longplex LLC
795 Aquidneck Avenue, Middletown Rhode Island o2842

SHEET 12 OF 17

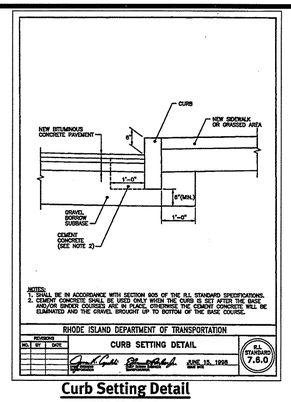
DE Job No: 1895-001-802 Copyright 2016 by DiPrete Engineering Associates, Inc.

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Typical Fence Section

NOT TO SCALE

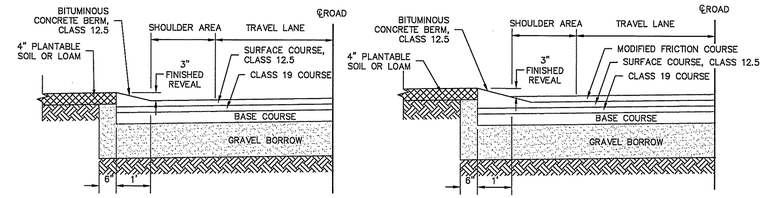


Curb Setting Detail

NOT TO SCALE

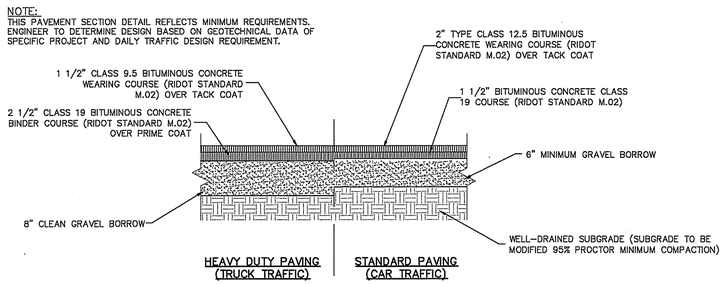
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. BITUMINOUS BERM CAN BE PLACED AT THE SAME TIME THAT THE SURFACE COURSE LAYER IS PLACED ON THE PROJECT ROADWAY, OR IT CAN BE INSTALLED IN A SEPARATE OPERATION.

R.I. STANDARD 7.5.1



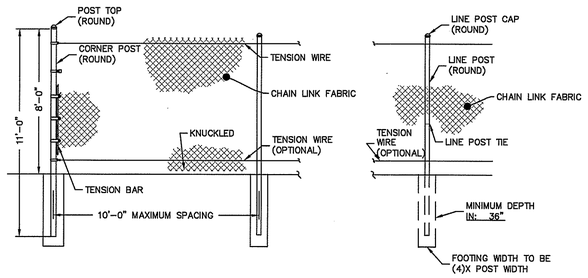
Bituminous Berm

NOT TO SCALE



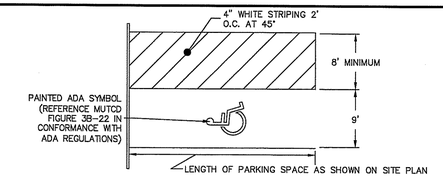
Typical Pavement Section

NOT TO SCALE



Fence Detail

NOT TO SCALE

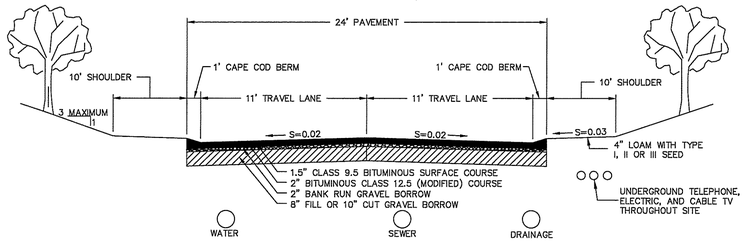


Typical Accessible Parking Spaces

NOT TO SCALE

GENERAL NOTES:
1. ROADWAY CROSS SECTION AND MATERIALS SHALL CONFORM TO TOWN/CITY STANDARDS FOR ROAD CONSTRUCTION AND UTILITY LOCATIONS.
2. CAPE COD CURBING HALL MANUFACTURING CO. MOLD JEX OR D.P.W. APPROVED EQUAL, SLOPE FACED PRECAST CONCRETE CURBING REQUIRED AT ALL INTERSECTION FILLET CURVES. SEE RIDOT STD. 7.2.0.
3. WATER MAIN LOCATION SUBJECT TO APPROVAL OF THE DIRECTOR OF PUBLIC WORKS.
4. STORM DRAIN MATERIALS AND METHODS SHALL CONFORM TO APPLICABLE TOWN OF SMITHFIELD AND RIDOT STANDARDS.
5. FIRE ALARMS ARE REQUIRED AND SHALL BE INSTALLED ACCORDING TO TOWN FIRE DEPARTMENT REQUIREMENTS.
6. UNDERGROUND UTILITY TRENCH CONSTRUCTION TO CONFORM TO THE NATIONAL GRID "DEVELOPER/CONTRACTOR/CUSTOMER RESPONSIBILITIES AND CONSTRUCTION SPECIFICATIONS FOR UNDERGROUND RESIDENTIAL DEVELOPMENTS"
7. SEWER FORCE MAIN SEPARATION TO WATER MAIN: 10' HORIZONTAL OR 2' VERTICAL BELOW WATER MAIN.

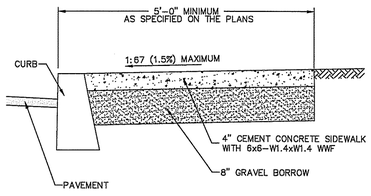
CONSTRUCTION NOTES:
1. CLEARING AND GRUBBING: ALL ROOT SYSTEMS, TREES, STUMPS, BUSHES, AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED AND DISPOSED OF AS INDICATED BY THE MUNICIPAL ENGINEER. HEALTHY TREES WITHIN THE RIGHTS-OF-WAY WIDTH AND OUTSIDE THE PAVEMENT WIDTH MAY BE LEFT STANDING, PROVIDED SAID TREES ARE NOT MORE THAN 5' FROM THE RIGHT-OF-WAY LINE, EXCEPT WHERE SIDEWALKS ARE REQUIRED.
2. EARTH EXCAVATIONS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE REMOVAL OF CLAY, SAND, GRAVEL, LOAM, SOFT OR DISINTEGRATED ROCK WHICH CAN BE REMOVED WITHOUT BLASTING; BOULDERS OF LESS THAN 1/2 CUBIC YARD IN VOLUME; AND, OTHER UNACCEPTABLE MATERIALS WITHIN THE LIMITS OF ROADWAY, DRAINAGE, OR OTHER EXCAVATION.
3. ROCK AND LEDGE EXCAVATION SHALL INCLUDE REMOVAL AND DISPOSAL OF ALL BOULDERS OF 1/2 CUBIC YARD OR MORE IN VOLUME AND ALL HARD LEDGE ROCK WHICH CAN BE REMOVED ONLY BY DRILLING AND SPLITTING MECHANICALLY BY HAND OR BLASTING
4. WHERE GROUND WATER IS ENCOUNTERED WITHIN 5' OF FINISHED GRADE AS DETERMINED BY RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, "GROUND WATER PROCEDURES", DURING THE WET SEASON, ADEQUATE SUBSURFACE DRAINAGE SHALL BE CONSTRUCTED TO LOWER THE GROUND WATER LEVEL TO A DEPTH OF AT LEAST 5' BELOW FINISHED GRADE.
5. PAVEMENT SHALL BE CONSTRUCTED SO AS TO PROVIDE A MINIMUM CROSS SECTION AFTER COMPACTION OF 8" GRAVEL BORROW BASE COURSE SUBBASE IN FILL AND 10" GRAVEL BORROW BASE COURSE IN CUTS WITH 2" OF CRUSHED BANK RUN GRAVEL BORROW (MEETING TOWN SPECIFICATIONS) AND HOT-MIX ASPHALTIC AND BITUMINOUS CONCRETE MATERIALS CONFORMING TO R.I. STANDARD SPECIFICATIONS.



Typical Road Construction (Private Road)

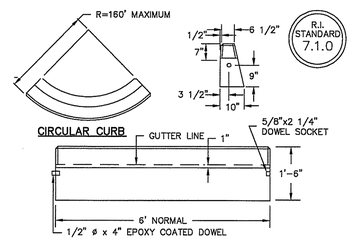
NOT TO SCALE

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. FOR CURB SETTING DETAIL REFERENCE STD. 7.6.0.
3. MEETS OR EXCEEDS GUIDELINES OF RIDOT STANDARD DETAIL 43.1.0.



Cement Concrete Sidewalk

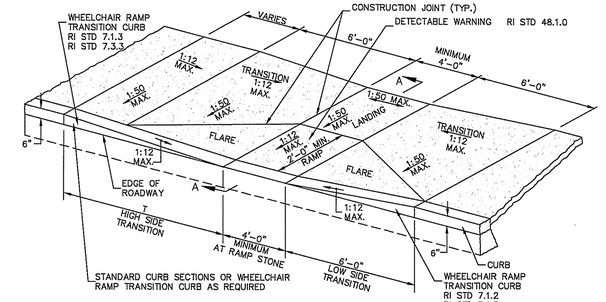
NOT TO SCALE



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

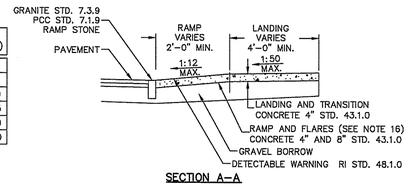
Precast Concrete Curb

NOT TO SCALE



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 5 2016 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

ROADWAY PROFILE GRADE	T (FT.)
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:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. 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.
3. 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.
4. DRAINAGE FACILITIES ARE TO BE LOCATED UP-GRADE OF ALL WHEELCHAIR RAMPS.
5. LOCATION OF WHEELCHAIR RAMPS IS AS SHOWN ON CONTRACT DRAWINGS.
6. IN NO INSTANCE SHALL THE SIDEWALK CROSS SLOPE EXCEED 1:50 EXCEPT WITHIN THE RAMP AREA.
7. AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 4'-0" SHALL BE MAINTAINED.
8. 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.
9. WHERE THE ROAD PROFILE EXCEEDS 5% THE HIGH SIDE TRANSITION LENGTH ('I') SHALL BE EIGHTEEN FEET (18'-0")
10. IN NO CASE, WHERE A STOP LINE IS WARRANTED, SHALL A RAMP BE PLACED BEHIND THE STOP LINE.
11. THE ENTRANCE OF THE WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
12. THE WHEELCHAIR RAMP SHALL BE CENTERED RADIALLY, OPPOSITE THE RADIUS POINT WHEN POSSIBLE.
13. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0" (GREATER LENGTHS PREFERRED).
14. ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
15. DETECTABLE WARNINGS TO BE PAID FOR UNDER SECTION 942 OF THE RI STANDARD SPECIFICATIONS.
16. 8" CONCRETE DEPTH FOR RADIUS WHEELCHAIR RAMPS ONLY. USE 4" DEPTH FOR TANGENT (MID-BLOCK) LOCATIONS.
17. MEETS OR EXCEEDS GUIDELINES OF RIDOT STANDARD DETAIL 43.3.0.

Wheelchair Ramp (ADA)

NOT TO SCALE

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

KEVIN DEMERS
No. 8567
REGISTERED PROFESSIONAL ENGINEER
CIVIL

Environmental Management
AUG 2 2016
Office of Water Resources

This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By
6	7-28-2016	Response to Town Comments	AJA
5	7-20-2016	Response to Comments	KJD
4	7-12-2016	RIDEM PD Response to Comments	KJD
3	6-24-2016	Minor Subdivision Submission (Design Plus Book)	AJA
2	5-23-2016	RIDEM Preliminary Determination	BJD
1	5-05-2016	Preliminary Submission	AJA

Drawn By: AJA | Design By: MT

Details - 5

Longplex Sports & Family Complex

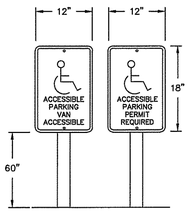
Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816 in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
795 Aquidneck Avenue, Middletown Rhode Island 02842

DE Job No: 1895-001-802 Copyright 2016 by DiPrete Engineering Associates, Inc.

SHEET 13 OF 17

z:\dems\h\projects\1895-001 tiverton industrial park\autocad drawings\1895-001-dist.dwg Plotted: 7/28/2016

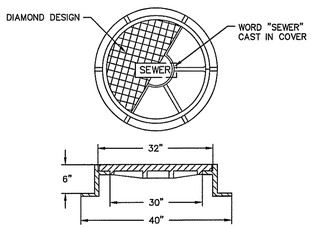


NOTES:
1. SIGN SHALL BE PLACED BEHIND APPLICABLE VAN ACCESSIBLE OR ACCESSIBLE SPACE AS SHOWN ON SIGNAGE PLAN.
2. ACCESSIBLE PARKING SPACES AND SIGNAGE SHALL COMPLY WITH LATEST VERSION OF THE ADA STANDARDS FOR ACCESSIBLE DESIGN OR THE RI BUILDING CODE, WHICHEVER STANDARD CONTROLS.

Typical Accessible Parking Post & Sign

NOT TO SCALE

NOTE:
1. SEWER MANHOLE FRAME AND COVER SHALL BE LEBARON MODEL LC326-2 OR APPROVED EQUAL.



Water-Tight Sewer Manhole Frame & Cover Detail

NOT TO SCALE

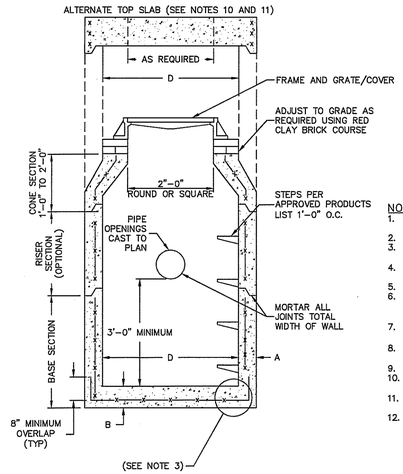


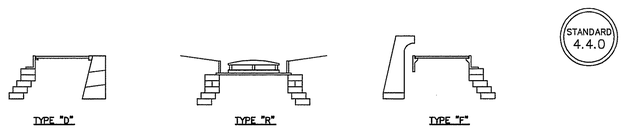
TABLE 1			
CATCH BASIN DIAMETER (D)	A	B	CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED*
4'-0"	5"	6"	0.12 SQ. IN./LIN. FT.
5'-0"	6"	7"	0.15 SQ. IN./LIN. FT.
6'-0"	7"	8"	0.18 SQ. IN./LIN. FT.

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

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

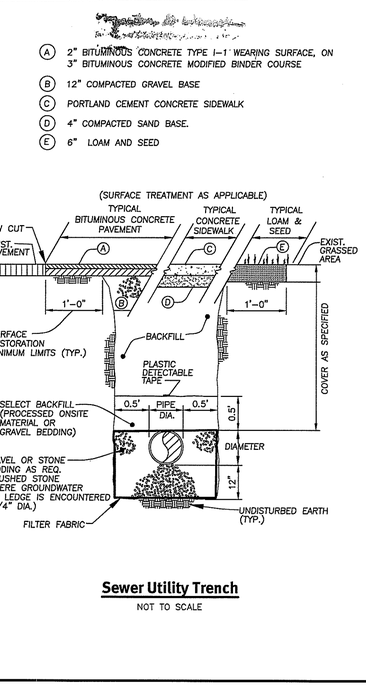
Precast Round Catch Basin

NOT TO SCALE



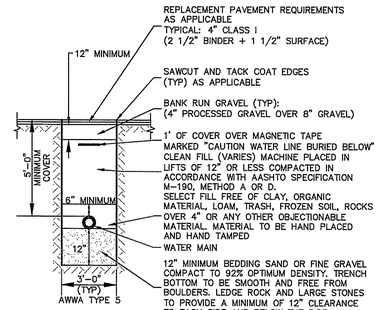
TYPE CATCH BASIN AS REQUIRED

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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Sewer Utility Trench

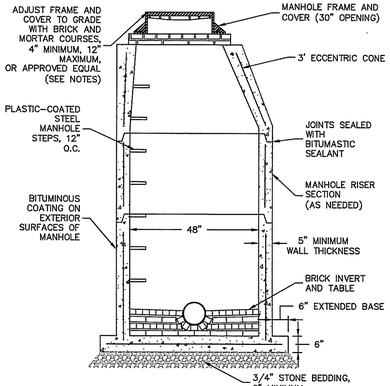
NOT TO SCALE



Water Trench Detail

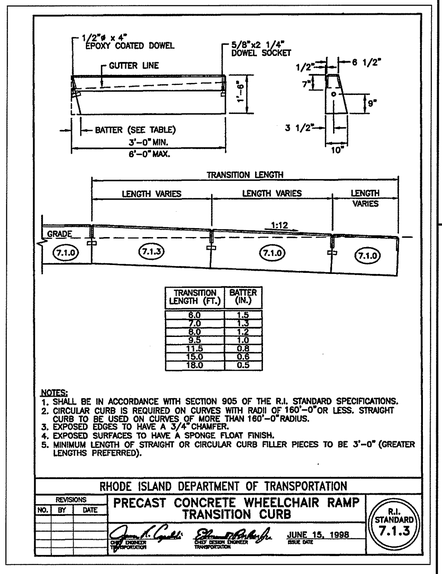
NOT TO SCALE

NOTES:
1. MANHOLE SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM-C478.
2. INVERT AND TABLE SHALL CONSIST ENTIRELY OF BRICK AND MORTAR. NO SAND FILLER SHALL BE ALLOWED.
3. MANHOLES SHALL BE VACUUM TESTED PRIOR TO ACCEPTANCE, IN ACCORDANCE WITH THE SEWER AUTHORITY SANITARY RULES AND REGULATIONS. UNDER NO CIRCUMSTANCES WILL EXFILTRATION TESTING BE ACCEPTED.
4. BOLTED AND GASKETED COVERS SHALL BE USED ON MANHOLES IN OFF-ROAD AREAS.
5. TAPPING OF MANHOLES MUST BE AUTHORIZED AND INSPECTED BY THE SEWER AUTHORITY. THE ONLY APPROVED METHOD FOR TAPPING MANHOLES SHALL BE BY CORE-DRILLING THE MANHOLE AND INSTALLING A "KOR-N-SEAL" BOOT.
6. PRECAST CONCRETE GRADE RINGS, HDPE GRADE RINGS, OR OTHER RIM ADJUSTMENT PRODUCTS MAY BE USED IN LIEU OF BRICK AND MORTAR WITH THE PERMISSION OF THE SEWER AUTHORITY.



Sewer Manhole

NOT TO SCALE



TRANSITION LENGTH (FT.)	BATTER (IN.)
6.0	1.5
7.0	1.3
8.5	1.2
9.5	1.0
11.5	0.8
15.0	0.6
18.0	0.5

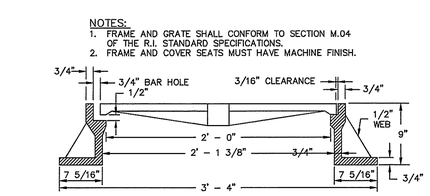
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. CIRCULAR CURB IS REQUIRED ON CURVES WITH RADII OF 160'-0" OR LESS. STRAIGHT CURB TO BE USED ON CURVES OF MORE THAN 160'-0" RADIUS.
3. EXPOSED EDGES TO HAVE A 3/4" CHAMFER.
4. EXPOSED SURFACES TO HAVE A SPONGE FLOAT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

RHODE ISLAND DEPARTMENT OF TRANSPORTATION		
REVISIONS NO. BY DATE	PRECAST CONCRETE WHEELCHAIR RAMP TRANSITION CURB	R.I. STANDARD 7.1.3
	CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — JUNE 15, 1998 ISSUE DATE	

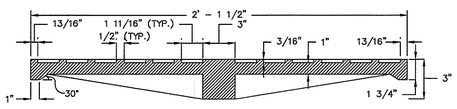
Square Frame And Grate

NOT TO SCALE

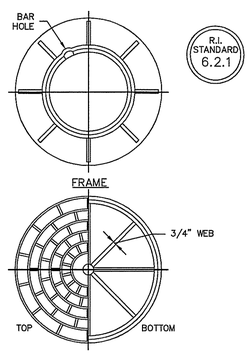
NOTES:
1. FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
2. FRAME AND COVER SEATS MUST HAVE MACHINE FINISH.



FRAME SECTION

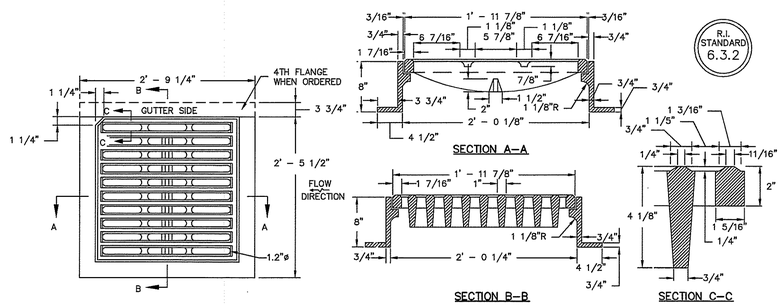


COVER SECTION



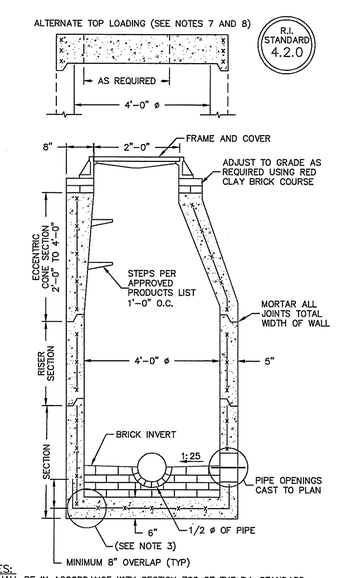
Heavy-Duty Round Frame and Cover

NOT TO SCALE



Square Frame And Grate (Bicycle Safe)

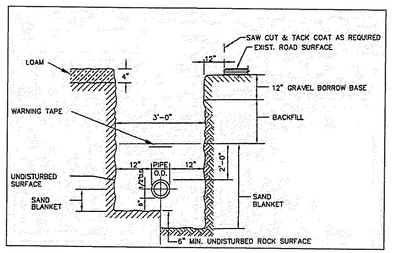
NOT TO SCALE



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

Precast 4'-0" Round Manhole

NOT TO SCALE



LOW PRESSURE SEWER TRENCH

NOT TO SCALE

DiPrete Engineering
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KEVIN DEMERS
No. 8567
REGISTERED PROFESSIONAL ENGINEER
CIVIL

This regulatory submission set shall not be used for construction purposes unless stamped "Issued for Construction" and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

RECEIVED AUG 2 2016 Environmental Management Office of Water Resources

No.	Date	Description	By:
6	7-28-2016	Response to Town Comments	JAB
5	7-19-2016	Response to Comments	ACA
4	7-1-2016	RIDEM PII Response to Comments	KDD
3	6-13-2016	RIDEM Preliminary Determination	BHO
2	5-13-2016	Comments/Land Development Site Plan Design Plan Review	ACA
1	05-05-2016	RIDEM Preliminary Determination	BHO
0	4-15-2016	Pre-Application Submission	ACA

Design By: MT
Drawn By: ACA

Details - 6
Longplex Sports & Family Complex
Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878
Applicant
Longplex LLC
756 Aquidneck Avenue, Middletown Rhode Island 02842

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SHEET 14 OF 17

z:\deman\projects\1895-001 tiverton industrial park\autocad drawings\1895-001-dist.dwg Plotted: 7/29/2016

GENERAL NOTES:

1. THE TEMPORARY SEDIMENT TRAP SHALL MEET ALL REQUIREMENTS FOR TEMPORARY SEDIMENT TRAPS OUTLINED IN THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK (LATEST REVISION) SECTION SIX: SEDIMENT CONTROL MEASURES
2. THE TEMPORARY SEDIMENT TRAP SHALL HAVE AN INITIAL STORAGE COLUMN OF 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER EXCEPT FOR THE EXCAVATED WET STORAGE AREA WHERE SLOPES SHALL NOT EXCEED 1.5:1.
4. THE OUTLET SHALL BE LOCATED AT THE MOST DISTANT HYDRAULIC POINT FROM THE INLET.
5. THE OUTLET CONSISTS OF A PERVIOUS STONE DIKE WITH A CORE OF MODIFIED RIPRAP AND FACED ON THE UPSTREAM SIDE WITH STONE.
6. TEMPORARY SEDIMENT TRAPS MUST OUTLET ONTO STABILIZED GROUND.
7. MAXIMUM HEIGHT OF A TEMPORARY SEDIMENT TRAP EMBANKMENT IS LIMITED TO 5 FEET.
8. SIDE SLOPES OF THE EMBANKMENT SHALL BE 2:1 OR FLATTER.
9. MODIFIED RIPRAP: SHALL MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.10.03.2.
10. FILTER STONE: SHALL MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.01.03 TABLE I, COLUMN V FILTER STONE.

INSTALLATION NOTES:

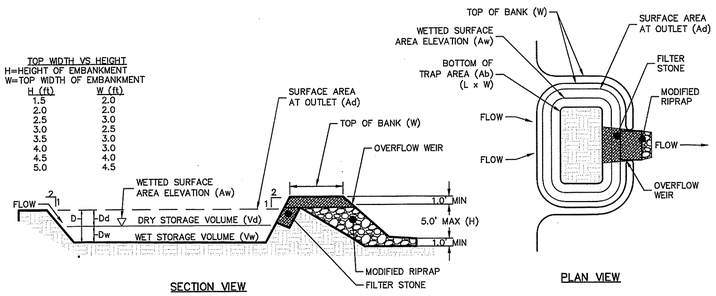
1. CLEAR, GRUB AND STRIP ANY VEGETATION AND ROOT MAT FROM ANY PROPOSED EMBANKMENT AND OUTLET AREA.
2. REMOVE STONES AND ROCKS WHOSE DIAMETER IS GREATER THAN THREE (3) INCHES AND OTHER DEBRIS.
3. EXCAVATE WET STORAGE AND CONSTRUCT THE EMBANKMENT AND/OR OUTLET AS NEEDED TO ATTAIN THE NECESSARY STORAGE REQUIREMENTS.
4. USE ONLY FILL MATERIAL FOR THE EMBANKMENT THAT IS FREE FROM EXCESSIVE ORGANICS, DEBRIS, LARGE ROCKS (OVER SIX (6) INCHES) OR OTHER UNSUITABLE MATERIALS. COMPACT THE EMBANKMENT IN 9-INCH LAYERS BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED
5. STABILIZE THE EARTHEN EMBANKMENT USING ANY OF THE FOLLOWING MEASURES, SEEDING FOR TEMPORARY VEGETATION COVER; SEEDING FOR PERMANENT VEGETATIVE COVER; OR SLOPE PROTECTION, IMMEDIATELY AFTER INSTALLATION

INSPECTION, MAINTENANCE, AND REMOVAL REQUIREMENTS:

1. INSPECT THE TEMPORARY SEDIMENT TRAP AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.25 INCH OR GREATER.
2. CHECK THE OUTLET TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT.
3. CHECK FOR SEDIMENT ACCUMULATION AND FILTRATION PERFORMANCE.
4. WHEN SEDIMENTS HAVE ACCUMULATED TO ONE HALF THE MINIMUM REQUIRED VOLUME OF THE WET STORAGE, DEWATER THE TRAP AS NEEDED, REMOVE SEDIMENTS AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS.
5. DISPOSE OF THE SEDIMENT REMOVED FROM THE BASIN IN A SUITABLE AREA.
6. THE TEMPORARY SEDIMENT TRAP MAY BE REMOVED AFTER THE CONTRIBUTING DRAINAGE AREA IS STABILIZED.

TOP WIDTH VS HEIGHT
H=HEIGHT OF EMBANKMENT
W=TOP WIDTH OF EMBANKMENT

H (ft)	W (ft)
1.5	2.0
2.0	2.0
2.5	3.0
3.0	2.5
3.5	3.0
4.0	3.0
4.5	4.0
5.0	4.5



SECTION VIEW

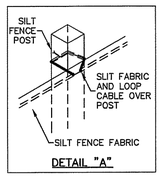
PLAN VIEW

Temporary Sediment Trap Detail

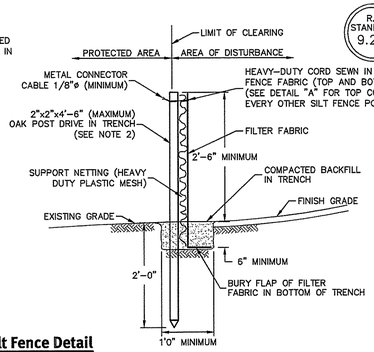
NOT TO SCALE

NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
2. 2"x2"x4'-6" (MAXIMUM) OAK POSTS FOR SILT FENCE SHALL BE LOCATED 8'-0" (MAXIMUM) O.C. IN WETLAND AREAS AND 4'-0" (MAXIMUM) O.C. IN WETLAND RAVINE. GULLY OR DROP-OFF AREAS AS SHOWN ON PLANS.
3. 1"x1"x4'-6"(MINIMUM) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
4. SILT FENCE SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.



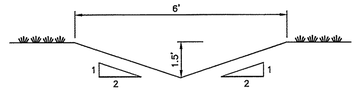
DETAIL "A"



R.I. STANDARD 9.2.0

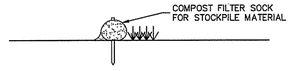
Silt Fence Detail

NOT TO SCALE



Temporary Diversion Channel (Soil Erosion and Sediment Control)

NOT TO SCALE



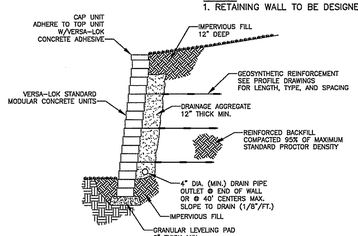
NOTES:

1. ALL MATERIAL TO MEET FILTREXX(R) SPECIFICATIONS
2. FILTER MEDIA(TM) FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER
4. STAKES ARE NOT TO BE USED IN PAVEMENT AREAS.
5. SELF WEIGHT OF FILTREXX SYSTEM IS ADEQUATE TO PREVENT SYSTEM OF MOVEMENT ONCE POSITIONED ALONG AREA SHOWN IN PLAN ABOVE.
6. CONTRACTOR TO PLACE FILTREXX SEDIMENT CONTROL OR EQUAL AROUND ALL CURB INLET LOCATIONS AS SPECIFIED ON PLANS.

Filtrexx Continuous Compost Filter Sock or Approved Equal

NOT TO SCALE

NOTE:
1. RETAINING WALL TO BE DESIGNED BY OTHERS.

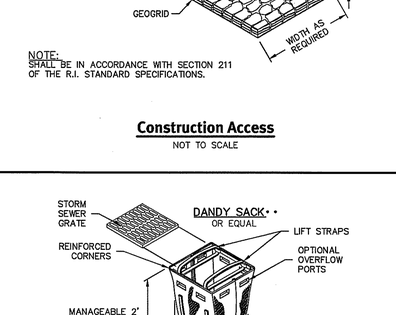


TYPICAL SECTION—REINFORCED RETAINING WALL
MODULAR CONCRETE UNIT
SCALE: NONE

THESE PRE-MANUFACTURED DETAILS ARE INTENDED AS AN AID IN DESIGNING SOUND, ECONOMICAL RETAINING WALLS AND ARE NOT A SUBSTITUTE FOR PROFESSIONAL DETERMINATION OF THE SUITABILITY OF ANY INFORMATION OR MATERIAL FOR THE USE CONTEMPLATED, AND ITS MANNER OF USE, IS THE SOLE RESPONSIBILITY OF THE USER. A FINAL PROJECT SPECIFIC DESIGN SHOULD BE PREPARED BY A QUALIFIED, LICENSED, PROFESSIONAL ENGINEER.

VERSA-LOK® Retaining Wall Systems
VERSA-LOK STANDARD DETAILS
REINFORCED TYPICAL SECTION

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 5 2016 FILE # 16-0114
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

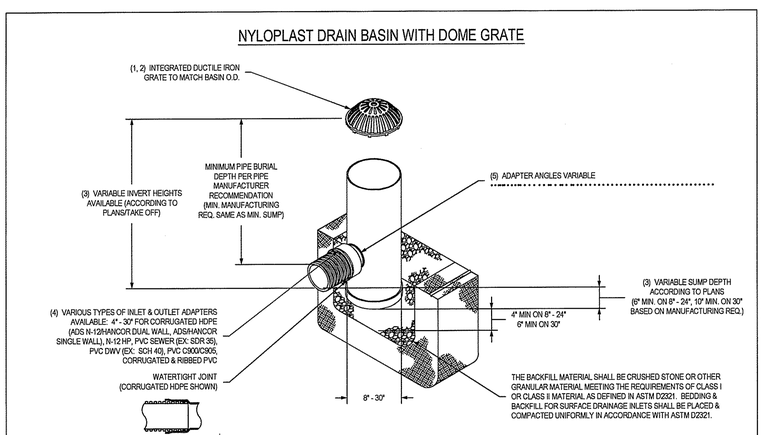


R.I. STANDARD 9.9.0

NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE R.I. STANDARD SPECIFICATIONS.

Construction Access

NOT TO SCALE



1 - 8" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 8" & 10" DOME GRATES FIT ONTO THE DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
MINIMUM ANGLE BETWEEN ADAPTERS: SEE DRAWING NO. 7001-110-012.
6 - 8" - 30" DOME GRATES HAVE NO LOAD RATING.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREON, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST. ® IPEX NYLOPLAST

DRAWN BY	EBC
DATE	03-25-10
REVISED BY	CCA
DATE	09-03-13
MATERIAL	
PROJECT NO./NAME	
DWG SIZE	A
SCALE	1:40
SHEET	1 OF 1

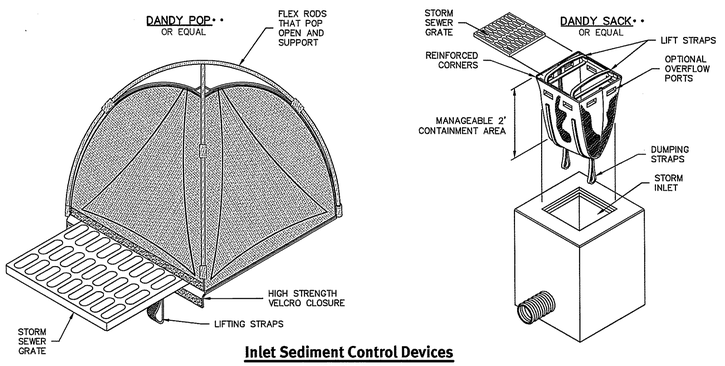
Nyloplast
3150 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE: DRAIN BASIN WITH DOME GRATE QUICK SPEC INSTALLATION DETAIL
DWG NO. 7001-110-397 REV C



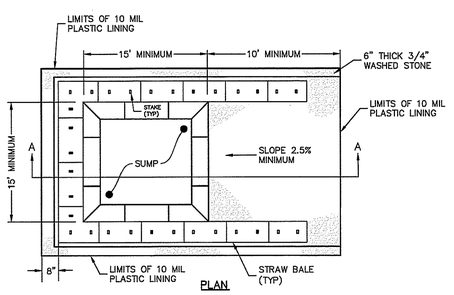
Upstream Diversion Channel

NOT TO SCALE

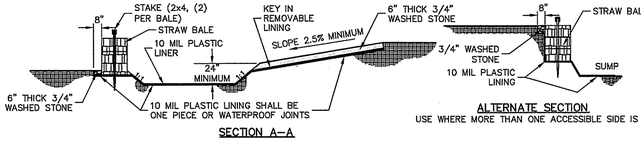


Inlet Sediment Control Devices

NOT TO SCALE



PLAN



SECTION A—A

ALTERNATE SECTION
USE WHERE MORE THAN ONE ACCESSIBLE SIDE IS NEEDED



WASHOUT SIGN

Concrete Washout Area

(NOT TO SCALE)

NOTES:

1. PIT IS SPECIFICALLY DESIGNATED, DIKED AND IMPERVIOUS CONTAINMENT TO PREVENT CONTACT BETWEEN CONCRETE WASH AND STORMWATER.
2. WASH WATER SHALL NOT BE ALLOWED TO FLOW TO SURFACE WATER.
3. FACILITY MUST HOLD SUFFICIENT VOLUME TO CONTAIN CONCRETE WASTE WITH A MINIMUM FREEBOARD OF 12."
4. FACILITY SHALL NOT BE FILLED BEYOND 95% CAPACITY UNLESS A NEW FACILITY IS CONSTRUCTED.
5. SAWCUT PORTLAND CEMENT CONCRETE, RESIDUE FROM SAWCUT AND GRINDING TO BE DISPOSED OF IN THE PIT.
6. CONCRETE WASHOUTS SHALL BE LOCATED A MINIMUM OF 100' FROM DRAINAGE WAYS, INLETS, AND SURFACE WATERS.
7. MANUFACTURED CONCRETE WASHOUT DEVICES MAY BE USED IF REMOVED FROM THE SITE WHEN 95% FULL CAPACITY.

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.dipreteeng.com
Boston • Providence • Newport

KEVIN DEMERS
No. 8557
REGISTERED PROFESSIONAL ENGINEER
CIVIL

Environmental Management
AUG 2 2016
Office of Water Resources

This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
6	7-28-2016	Response to Town Comments	LAB
5	7-26-2016	Response to Comments	ACA
4	7-1-2016	RIDEM PO Response to Comments	ACA
3	5-13-2016	RIDEM Preliminary Determination Formal Submission (Owner Has Revised Plans)	ACA
2	5-13-2016	RIDEM Preliminary Determination	BJO
1	3-17-2015	Pre-Application Submission	ACA

Drawn By: ACA | Design By: MT

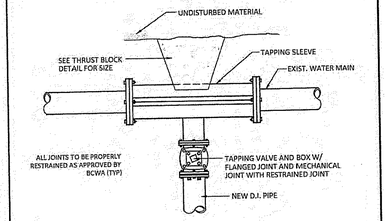
Details - 7
Longplex Sports & Family Complex
Assessor's Plat 107 Lots 8o5, 8o6, 8o7, 8o8, 8o9, 8o10 and Part Lots 8o3 & 8o5
In Tiverton, Rhode Island 02878
Applicant
Longplex LLC
795 Aquidneck Avenue, Middletown Rhode Island 02842

DE Job No: 1895-001 802

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SHEET 15 OF 17

z:\dems\projects\1895-001 tiverton industrial park\autocad drawings\1895-001-dist.dwg Plotted: 7/28/2016



NOTE:

1.) TAPPING SLEEVE, VALVE AND PIPE TO BE DISINFECTED WITH CHLORINE SOLUTION PRIOR TO INSTALL.

2.) TAPPING SLEEVE TO BE PRESSURE TESTED USING AIR PRIOR TO TAPPING PIPE.

3.) ALL MATERIALS, BEDDING AND BACKFILL PER BCWA SPECIFICATIONS.

4.) THRUST BLOCK PER BCWA SPECIFICATIONS.

5.) ALL WORK AND MATERIALS SHALL BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/OR ACTIVATED.

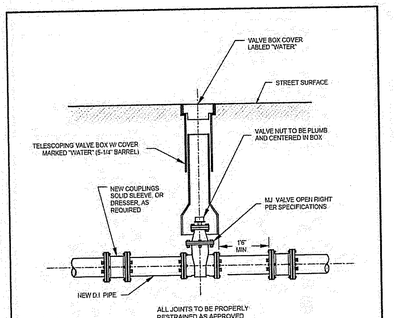
6.) WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

3.0-TAPINGSLEVE-2016.DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | TAPPING SLEEVE & VALVE | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 1/2016 | DETAIL 3.0

Tapping Sleeve & Valve

NOT TO SCALE



NOTE:

1.) ALL MATERIALS, BEDDING AND BACKFILL PER BCWA SPECIFICATIONS.

2.) ALL WORK AND MATERIALS SHALL BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/OR ACTIVATED.

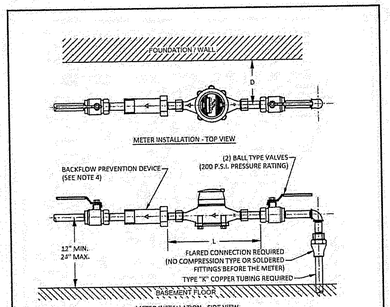
3.) WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

6.0 Cut in New Running Viv-2016 .DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | NEW MJ VALVE, INSTALLED IN EXISTING MAIN | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 1/2016 | DETAIL 3a

New MJ Valve in Existing Main

NOT TO SCALE



METER SIZE	L	D
5/8"	12 1/2"	12"
3/4"	14 1/4"	12"
1"	16 1/4"	12"
1 1/2" ("GAS")	15"	18"
2" ("GAS")	17"	18"

NOTES:

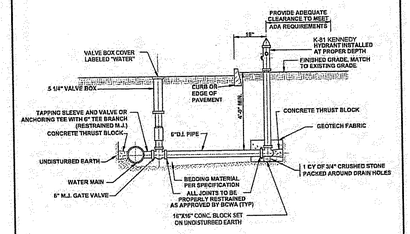
1. THE METER SHALL BE LOCATED AS NEAR AS POSSIBLE TO THE POINT AT WHICH THE SERVICE ENTERS THE BUILDING.
2. THE METER SHALL BE INSTALLED HORIZONTALLY.
3. METERS INSTALLED INSIDE BUILDINGS SHALL NOT BE INSTALLED IN PITS.
4. INDIVIDUAL RESIDENCES (RESTRICTED TO 3-UNIT RESIDENCES OR LESS) REQUIRE A RESIDENTIAL DUAL CHECK VALVE; ALL OTHER WATER SERVICES REQUIRE A BCWA APPROVED TESTABLE BACKFLOW PREVENTION DEVICE IN ACCORDANCE WITH BCWA RULES & REGULATIONS. ALL MODELS OF BACKFLOW PREVENTION DEVICES ARE REQUIRED TO BE LEAD FREE.

7S-Meter Installation Detail-2015.DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | METER INSTALLATION DETAIL | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 11/2015 | DETAIL 12a

Meter Installlation

NOT TO SCALE



NOTES:

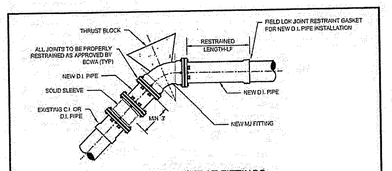
1. ALL MATERIALS, BEDDING AND BACKFILL PER BCWA SPECIFICATIONS.
2. ALL WORK SHALL BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/OR ACTIVATED.
3. HYDRANT MUST BE BURIED TO MANUFACTURERS PROPER DEPTH (BURY LINE) TO ALLOW SUFFICIENT CLEARANCE TO BOLT/UNBOLT THE UPPER BARREL AND SAFETY FLANGES.
4. USE APPROVED JOINT RESTRAINT GLANDS AND THRUST BLOCKS. THRUST BLOCKING SHALL HAVE A MINIMUM OF 3 SQUARE FEET AGAINST UNDISTURBED EARTH.
5. BARRINGTON HYDRANTS TO BE (OPEN LEFT), 4-1/2" PUMPER NOZZLE WITH CAP THREAD G.A.N.S., TWO 2-1/2" HOSE NOZZLES WITH CAPS , THREAD G.A.N.S., 6" M.J. CONNECTION WITH ACCESSORIES. OPERATING AND CAP NUTS TO BE 1-3/8" POINT TO FLAT POINT PENTAGON.
6. BRISTOL & WARREN HYDRANTS TO BE (OPEN LEFT), 4" PUMPER NOZZLE WITH CAP THREAD G.A 7.465., TWO 2-1/2" HOSE NOZZLES WITH CAPS, THREAD G.A.N.S., 6" M.J. CONNECTION WITH ACCESSORIES, OPERATING AND CAP NUTS TO BE 1-3/8" POINT TO FLAT POINT PENTAGON.
7. FACTORY APPLIED PAINT: BARREL & HEAD - SAFETY YELLOW; BONNET AND CAPS - SILVER ALUMINUM
8. WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

13.1 BAR-BRI-WAR-HYDRANT-2016.DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | HYDRANT | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 02/2015 | DETAIL 6.0

Hydrant Detail

NOT TO SCALE



RESTRAINT AT FITTINGS

MINIMUM SURFACE AREA OF CONCRETE THRUST BLOCK AGAINST UNDISTURBED EARTH – IN S.F. (SQUARE FEET).
MINIMUM RESTRAINED LENGTH OF PIPE ON EITHER SIDE OF FITTING – IN L.F. (LINEAR FEET).

PIPE SIZE	PLUG SF	PLUG LF	TEE SF	TEE LF	90° BEND SF	90° BEND LF	45° BEND SF	45° BEND LF	22 1/2° BEND SF	22 1/2° BEND LF	11 1/4° BEND SF	11 1/4° BEND LF
6"	2.8	27	2.8	32	4.0	16	2.1	8	1.1	4	1.0	2
8"	4.6	48	4.6	43	6.5	23	3.4	10	1.9	5	1.6	2
10"	7.1	68	7.1	63	10.1	29	5.3	12	2.8	6	1.4	3
12"	10.3	88	10.3	83	14.5	35	7.6	14	4.0	6	2.0	3
16"	17.8	129	17.8	83	25.2	42	13.6	17	7.0	8	3.5	4
20"	27.5	168	27.5	102	38.5	51	21.0	21	10.7	10	5.4	5
24"	39.2	127	39.2	121	55.4	59	30.0	29	15.3	12	7.7	6

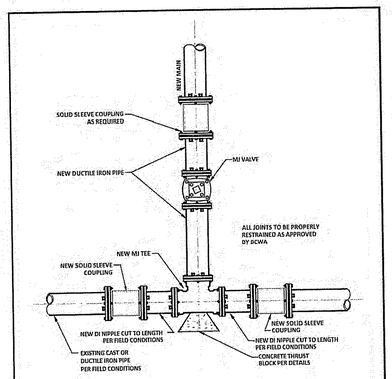
1. ALL CONCRETE TO BE CLASS B (4E).
2. THE "SF" VALUES IN THE ABOVE TABLE ARE BASED ON 3000 p.s.f. SOIL BEARING CAPACITY, 150 p.s.i. TEST PRESSURE AND A 1.5 FACTOR OF SAFETY.
3. THE "LF" VALUES IN THE ABOVE TABLE ARE BASED ON A TYPE 3 LAYING CONDITION, A SAND SILT SOIL CLASSIFICATION, A 3 FOOT RUN LENGTH, 150 P.S.I. TEST PRESSURE AND A 1.5 FACTOR OF SAFETY AS USED IN THE "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" COMPUTER PROGRAM BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION.
4. IF SOIL CONDITIONS OR EXCAVATION LIMITS ENCOUNTERED DURING CONSTRUCTION MAKE IT UNFEASIBLE TO PLACE THRUST BLOCKS AGAINST UNDISTURBED EARTH OF THE PROPER BEARING CAPACITY, THE CONTRACTOR SHALL DESIGN AND PLACE SPECIAL REACTION BLOCKS OF SUFFICIENT WEIGHT TO RESIST FULL THRUST UNDER ALL CONDITIONS. THE DESIGN SHALL BE SUBJECT TO BCWA APPROVAL.
5. MINIMUM SURFACE AREAS SHALL BE INCREASED BY 50% IF DEEMED NECESSARY BY THE ENGINEER
6. A MECHANICAL JOINT RESTRAINT SYSTEM AS USED FOR VERTICAL BENDS.
7. AT THE DISCRETION OF THE ENGINEER, A MECHANICAL JOINT RESTRAINT SYSTEM MAY BE SUBSTITUTED FOR OR USED IN COMBINATION WITH PROPER THRUST BLOCKING.
8. A 48 HR. CURING PERIOD MUST BE GIVEN BEFORE FULL LINE PRESSURE CAN BE APPLIED TO NEW CONCRETE THRUST BLOCKS.
9. ANCHOR BLOCK DESIGN FOR PIPE LARGER THAN 24" SHALL BE REVIEWED ON AN INDIVIDUAL BASIS BY THE BCWA.
10. WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS. THE SPECIFICATIONS SHALL GOVERN

8.0A-BCWA-THRBLK+RESTRDET-2016.DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | THRUST BLOCK AND RESTRAINTS AT FITTINGS | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 2/2016 | DETAIL 8.0

Thrust Block & Restraint at Fittings

NOT TO SCALE



NOTE:

1.) ALL MATERIALS, BEDDING AND BACKFILL PER BCWA SPECIFICATIONS.

2.) ALL WORK AND MATERIALS SHALL BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/ OR ACTIVATED.

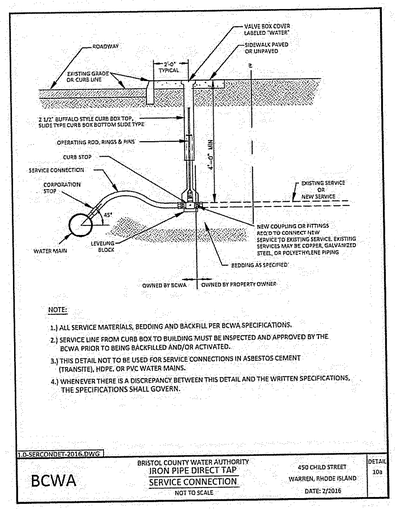
3.) WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

17A-Install New Tee and Main to Exist Main-2016.DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | INSTALL NEW TEE IN EXISTING MAIN | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 1/2016 | DETAIL 2b

New Tee in Existing Main

NOT TO SCALE



NOTE:

1.) ALL SERVICE MATERIALS, BEDDING AND BACKFILL PER BCWA SPECIFICATIONS.

2.) SERVICE LINE FROM CURB BOX TO BUILDING MUST BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/OR ACTIVATED.

3.) THIS DETAIL NOT TO BE USED FOR SERVICE CONNECTIONS IN ASBESTOS CEMENT (TRANSITE), HDPE, OR PVC WATER MAINS.

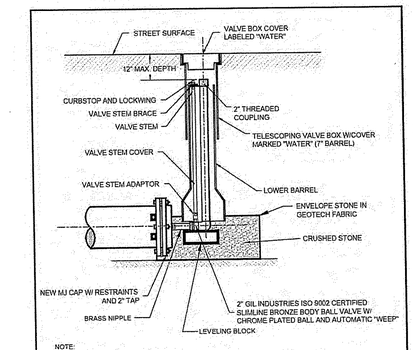
4.) WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

10-SERCONDET-2016.DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | IRON PIPE DIRECT TAP SERVICE CONNECTION | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 2/2016 | DETAIL 10a

Iron Pipe Connection

NOT TO SCALE



NOTE:

1.) ALL MATERIALS, BEDDING AND BACKFILL PER BCWA

2.) ALL WORK AND MATERIALS SHALL BE INSPECTED AND APPROVED BY THE BCWA PRIOR TO BEING BACKFILLED AND/OR ACTIVATED.

3.) WHENEVER THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE WRITTEN SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN

16.0 - 2 in BLOWOFF-2016.DWG

BCWA | BRISTOL COUNTY WATER AUTHORITY | 2" BLOWOFF ASSEMBLY | NOT TO SCALE | 450 CHILD STREET WARREN, RHODE ISLAND | DATE: 1/2016 | DETAIL 7.0

2" Blowoff Assembly

NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 5 2016 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

KEVIN DEMERS
No. 8557
REGISTERED PROFESSIONAL ENGINEER CIVIL

This regulatory submission set shall not be used for construction purposes unless stamped 'issued for Construction' and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
1	09-09-2016	Response to Comments	LAR
2	5-13-2016	Response to Comments	ACA
3	5-13-2016	Comments/Added Backflow Info/Change Title Block	ACA
4	7-1-2016	Response to Town Comments	ACA
5	7-19-2016	Response to Comments	ACA
6	7-28-2016	Response to Town Comments	LAR

Design By: MT
Drawn By: ACA

RECEIVED
AUG 2 2016
Office of Water Resources
Environmental Management

Details - 8

Longplex Sports & Family Complex
Assessor's Plat 107 Lots 805, 806, 807, 808, 809, 810 and Part Lots 803 & 816
in Tiverton, Rhode Island 02878

Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown Rhode Island 02842

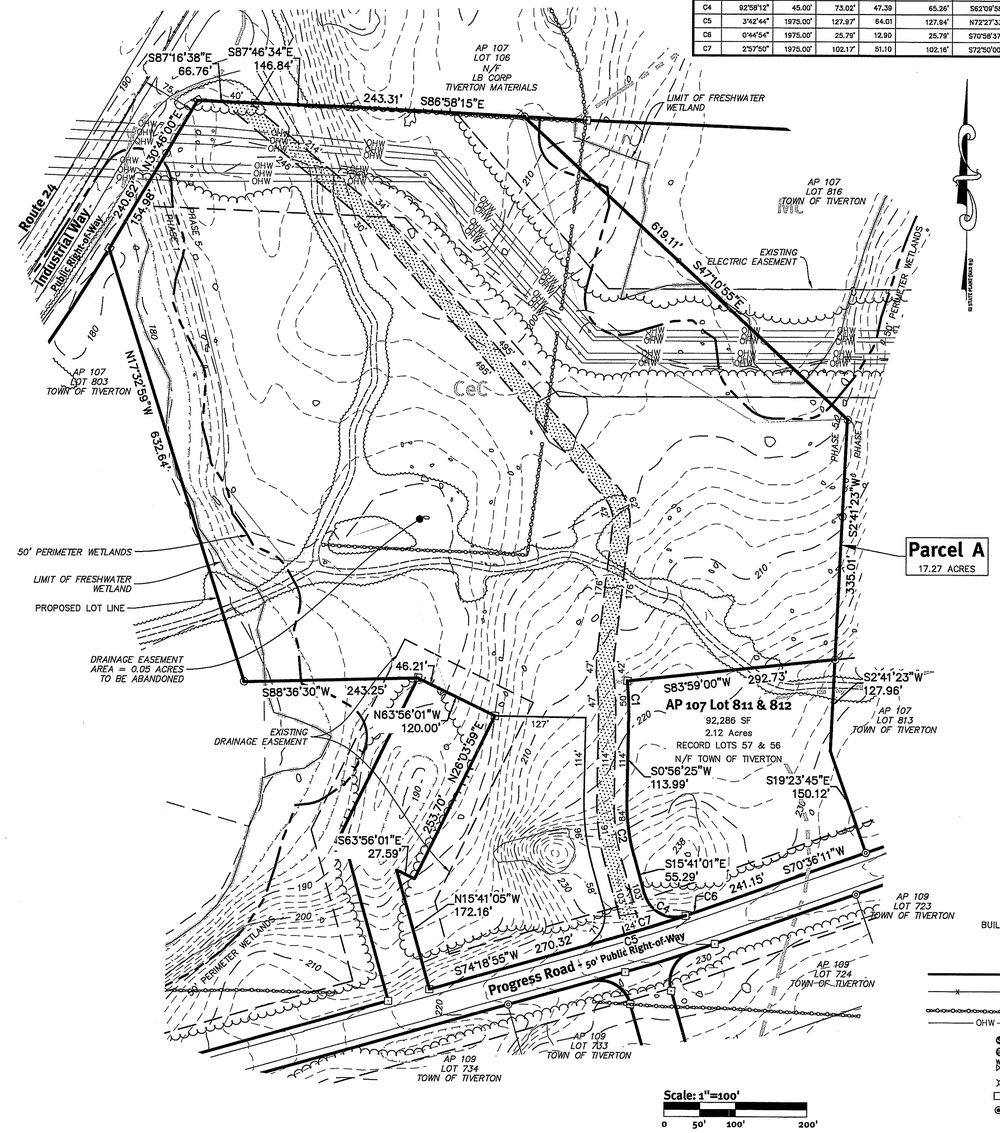
SHEET 16 OF 17

DE job No: 1895-001-902 Copyright 2016 by DiPrete Engineering Associates, Inc.

z:\demain\projects\1895-001 tiverton industrial park\autocad drawings\1895-001-dtst.dwg Plotted: 7/28/2016

Curve Table

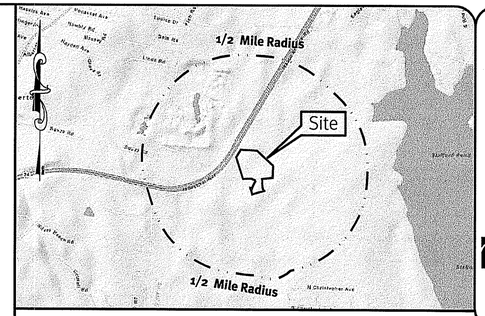
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD LENGTH	CHORD BEARING
C1	6°57'25"	430.00'	52.21'	26.14	52.18'	S2°32'17"E
C2	16°37'26"	270.00'	78.34'	39.45	78.06'	S7°22'16"E
C4	92°58'12"	45.00'	73.02'	47.39	65.26'	S62°09'58"E
C5	3°42'44"	1975.00'	127.97'	64.01	127.94'	N72°27'33"E
C6	0°44'54"	1975.00'	25.79'	12.90	25.79'	S70°58'37"W
C7	2°57'50"	1975.00'	102.17'	51.10	102.16'	S72°50'00"W



Scale: 1"=100'
0 50' 100' 200'

Legend

- BUILDING
- AP — ASSESSOR'S PLAT
- N/F — NOW OR FORMERLY
- PROPERTY LINE
- FENCE
- STONE WALL
- OHW — OVERHEAD WIRES
- SMH — SEWER/SEPTIC MANHOLE
- UTILITY/POWER POLE
- WATER VALVE
- FIRE HYDRANT
- BOUND FOUND/SET
- IRON ROD/PIPE FOUND/SET



1/2 Mile Locus Scale: 1"=2000'

Notes:

1. ALL LOTS WITHIN THE SITE ARE ZONED INDUSTRIAL, PLANNED DEVELOPMENT PARK.
2. THE OWNER OF PARCEL A IS: LONGPLEX LLC, 796 AQUIDNECK AVENUE, MIDDLETOWN, RI 02842
3. THE APPLICANT IS: LONGPLEX LLC, 796 AQUIDNECK AVENUE, MIDDLETOWN, RI 02842
4. TOPOGRAPHY SHOWN BASED ON RIGIS LIDAR DATA DERIVED FROM A 1-METER RESOLUTION DIGITAL ELEVATION MODEL ORIGINALLY DEVELOPED AS PART OF THE SPRING 2011 NORTHEAST LIDAR PROJECT, DATUM NAVD 88.
5. WETLANDS DELINEATED AND SURVEYED USING GPS SUBMETER TECHNOLOGY BY DIPRETE ENGINEERING, 2 STAFFORD COURT, CRANSTON, RI 02920 (401)943-1000. WETLAND EDGE VERIFIED UNDER RIDEM PERMIT NUMBER OCTA-11-012.

Development Data

1. PARCEL A – A.P. LOTS 804 THROUGH 810, PORTION OF 803 AND PORTION OF 816 752,243 SF, 17.27 ACRES. PARCEL A WAS CREATED BY "ADMINISTRATIVE SUBDIVISION, LONGPLEX SPORTS & FAMILY COMPLEX, TIVERTON, RHODE ISLAND, APPLICANT JLPH ACQUISITIONS CO. INC. 796 AQUIDNECK AVENUE, DATED 2/12/2016" RECORDED IN TIVERTON LAND EVIDENCE ON MAY 5, 2016 IN BOOK 24 PAGE 90.

Reference Plan:

"RECORD PLAN – PHASE 5, TIVERTON INDUSTRIAL PARK, TIVERTON, RHODE ISLAND, BLOCK 113 CARDS 69 & 72 (AP 107 LOT 105 & AP 109 LOT 101)", DATED 5/25/2012 BY DIPRETE ENGINEERING.

CHRISTOPHER A. DUHAMEL No. 1844 PROFESSIONAL LAND SURVEYOR 6-8-16

Certification:
THIS SURVEY AND PLAN CONFORMS TO A CLASS I STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.

BY CHRISTOPHER A. DUHAMEL, RIPLS #1844
C.O.A. NO. LS-A160

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.DiPrete-Eng.com
Engineers - Planners - Surveyors

Environmental Management
AUG 2 2016
Office of Water Resources

This regulatory submission set shall not be used for construction purposes unless stamped "Issued for Construction" and signed by a DiPrete Engineering representative.

No.	Date	Description	By:
1	06-08-2016	Response to Planning Board Comments	J.A.R.
2	08-02-2016	Wetlands Revision Submission	J.A.R.

Drawn By: J.A.R. Design By: M.K.T.

Existing Conditions Plan
Longplex Sports & Family Complex
Tiverton, Rhode Island
Applicant
Longplex LLC
796 Aquidneck Avenue, Middletown, Rhode Island 02842

Date: 06/09/2016

SHEET 17 OF 17

DE Job No: 1895-001 Copyright 2016 by DiPrete Engineering Associates, Inc.

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 5 2016 FILE # 16-0116
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE