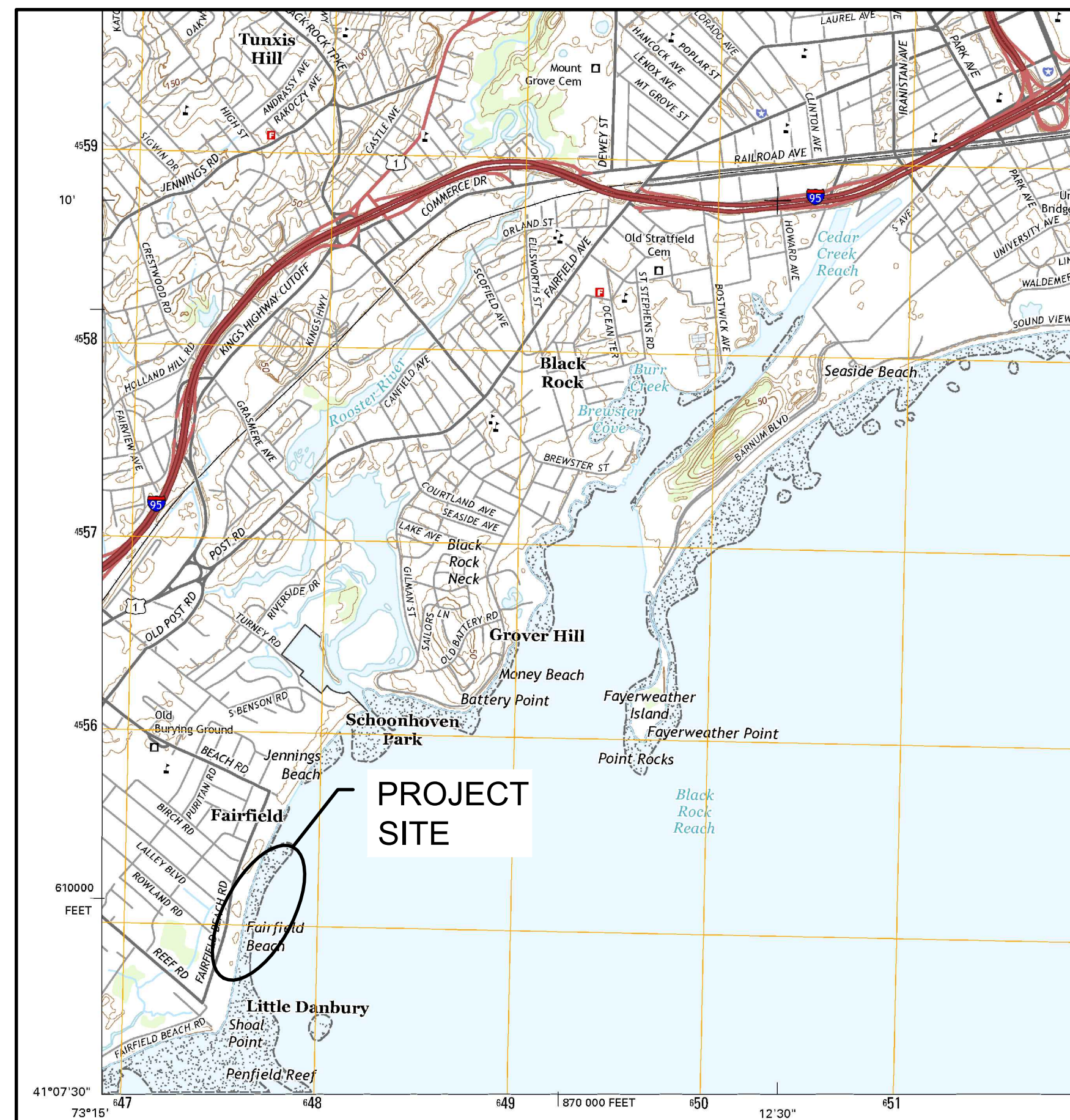
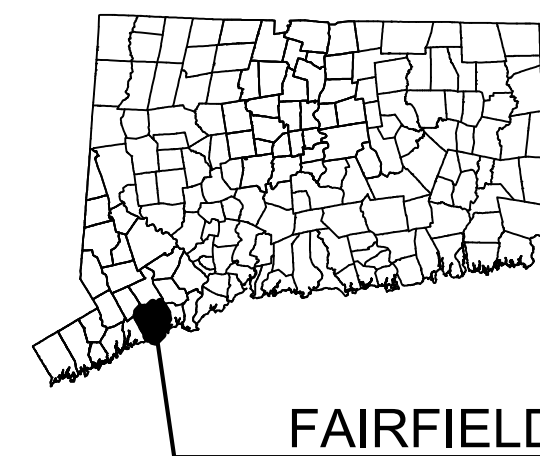


# PENFIELD BEACH ENGINEERED BEACH DESIGN FAIRFIELD BEACH ROAD FAIRFIELD, CT

04/12/2017



VICINITY MAP



FAIRFIELD



AERIAL PHOTO

DRAWING NO.	DRAWING NAME
1	TITLE SHEET, DRAWING LIST & VICINITY MAP
2	PROJECT NOTES
3	SITE PLAN
4	GRADING PLAN
5	SECTIONS

## LIST OF DRAWINGS

**OWNERSHIP AND CONDITIONS OF USE:**

Drawings and Specifications, as instruments of professional service, are and shall remain the property of RACE Coastal Engineering, LLC. Documents are not to be used, in whole or in part, for other projects or purposes or by any other parties than those authorized by contract without the specific written authorization of RACE Coastal Engineering, LLC. The use of this document is contingent upon payment to RACE Coastal Engineering, LLC for services rendered. Non-payment shall give RACE Coastal Engineering, LLC the authority to bar document use by any and all parties.

THIS DRAWING IS COPYRIGHTED

**REVISIONS:**

NO.	DESCRIPTION	BY	DATE

NOT VALID WITHOUT ENGINEER'S SEAL:

ISSUED FOR CONSTRUCTION

PREPARED FOR:

CONSERVATION DEPT  
TOWN OF FAIRFIELD  
725 OLD POST RD  
FAIRFIELD, CT 06824

PROJECT:

PENFIELD BEACH  
ENGINEERED BEACH DESIGN  
FAIRFIELD BEACH ROAD  
FAIRFIELD, CT

DRAWING:

TITLE SHEET, DRAWING LIST &  
VICINITY MAP

Designed By:	JAP	Date:	04/12/2017
Drawn By:	JAP	Scale:	As Noted
Checked By:	ADS	Project Number:	201644
CAD File:	PENFIELD20170407.DWG	Drawing No.:	1 of 05



**PROJECT NOTES**

DESCRIPTION OF WORK:

THE WORK COVERED UNDER THESE CONTRACT DOCUMENTS, INCLUDING THE DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS AND ALL AMENDMENTS, CONSISTS OF PROVIDING ALL LABOR, SUPERVISION, EQUIPMENT, APPLIANCES AND MATERIALS AND IN PERFORMING ALL OPERATIONS IN CONNECTION WITH AT LEAST, BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING ITEMS:

- REGRADE BEACH TO ENGINEERED SLOPES AND SPECIFICATIONS.

THE CONTRACTOR SHALL PROVIDE ALL ITEMS AND ACCESSORIES REQUIRED TO COMPLETE ALL ASPECTS OF THE WORK NEEDED FOR A COMPLETE AND PROPER INSTALLATION. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE PROJECT CONTRACT DOCUMENTS.

GENERAL NOTES:

- ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- TOPOGRAPHY TAKEN IN PART FROM DRAWING TITLED "TOPOGRAPHIC SURVEY," DATED JUNE 14, 2016 PREPARED BY GESICK & ASSOCIATES, P.C.
- SUPPLEMENTAL SITE INFORMATION OBTAINED BY RACE COASTAL ENGINEERING, LLC ON MAY 25, 2016.
- HYDROGRAPHIC SURVEY DATA OBTAINED BY RACE COASTAL ENGINEERING, LLC ON JUNE 17, 2016 AND ONLY REPRESENTS THE SITE CONDITIONS AT THAT TIME.
- WORK SHALL COMPLY WITH FEDERAL, STATE, AND LOCAL LAWS AND STATUTES AND THE REQUIREMENTS AND CONDITIONS OF ALL REGULATORY PERMITS ISSUED FOR THE WORK.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MEET LINES AND GRADES DEPICTED WITHIN THESE CONTRACT DRAWINGS.
- THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE PROJECT REGULATORY PERMITS AND ALL CONDITIONS OF THOSE PERMITS. THE CONTRACTOR IS ADVISED THAT THE REGULATORY PERMITS FOR THIS PROJECT MAY CONTAIN ADDITIONAL REQUIREMENTS THAT, AFTER ANY ADDENDUM, SUPERSEDE THE DRAWING NOTES. THE CONTRACTOR IS FURTHER ADVISED THAT IN THE CASE OF ANY DISCREPANCIES WITHIN THE CONTRACT DOCUMENTS FOUND BEFORE CONSTRUCTION, THE FINAL DECISION AS TO WHAT INFORMATION TAKES PRECEDENCE WILL BE MADE BY THE ENGINEER OF RECORD ON THE BASIS OF THAT INTENT.
- EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND FABRICATION OR ORDERING OF ANY CONSTRUCTION MATERIALS.
- SECTIONS AND DETAILS APPLY TO SAME AND SIMILAR CONDITIONS UNLESS SPECIFICALLY NOTED OTHERWISE HEREIN.
- DAMAGE TO ANY PROPERTY, PRIVATE OR OF PUBLIC TRUST, OCCURRING DURING THE CONSTRUCTION BY THE CONTRACTOR, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL SAFEGUARD AND PROTECT ALL EXCAVATIONS.
- THE CONTRACTOR SHALL USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
- THE CONTRACTOR SHALL USE EQUIPMENT ADEQUATE IN SIZE, CAPACITY, AND NUMBERS, AND MAINTAINED TO THE REQUIREMENTS OF ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS TO ACCOMPLISH THE WORK.
- THE CONTRACTOR SHALL PROTECT WETLANDS AND COASTAL RESOURCES FROM INTRUSION BY TURBID WATERS, CONSTRUCTION DEBRIS, CONSTRUCTION EQUIPMENT, OR PERSONNEL DURING WORK ACTIVITIES.
- THE CONTRACTOR SHALL INCLUDE IN HIS CONTRACT SUM THE COST FOR ALL NECESSARY PERMITS, LICENSES, CERTIFICATES OF INSPECTION, AND ALL LEGAL FEES IN CONNECTION WITH THE WORK OF THIS CONTRACT. THE OWNER IS TO OBTAIN NECESSARY REGULATORY PERMITS REQUIRED FOR THE WORK IN REGULATED AREAS. THE CONTRACTOR SHALL REQUEST COPIES OF THOSE REGULATORY PERMITS AND MAKE PROVISION IN THIS WORK AND IN THE COST OF THE WORK FOR APPLICABLE CONDITIONS OF THOSE PERMITS. FAILURE TO CONSIDER ANY CONDITION OF THE REGULATORY PERMITS AS A PART OF THE BID SHALL NOT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY TO APPLY THOSE CONDITIONS TO HIS WORK AT NO ADDITIONAL COST TO THE OWNER.

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT FROM DAMAGE UTILITIES, UTILITY STRUCTURES, FUEL LINES & TANKS OR ANY UNKNOWN UTILITIES OR STRUCTURES PRIOR TO ANY WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO KEEP A CLEAN & TIDY WORK SITE. THE SITE SHALL BE LEFT NEAT & CLEAN AT THE END OF EACH WORK DAY
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE LANDSCAPING INCLUDING BUT NOT LIMITED TO LAWN, TREES, PLANTINGS, ETC. DAMAGED BY THE CONTRACTOR DURING THE COURSE OF THE PROJECT.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR ANY DAMAGED PROPERTY CAUSED BY THE CONTRACTOR, INCLUDING BUT NOT LIMITED TO PAVEMENT, CURBING, FENCING, ETC. DAMAGED ITEMS SHALL BE REPAIRED IN KIND.

BEACH NOURISHMENT:

- MATERIAL SHALL BE DRY BEACH SAND FURNISHED BY THE CONTRACTOR.
- MATERIAL SHALL BE PROCESSED OR UNPROCESSED BANK RUN SAND OR BEACH SAND FREE OF ROOTS, ORGANIC MATTER, FROZEN LUMPS, TRASH OR OTHER DEBRIS.
- SAND SHALL MATCH THE COLOR AT THE SITE.
- ALL IMPORTED SAND SHALL MEET THE FOLLOWING GRADATION (ASTM D 422):

SPECIFICATIONS FOR DRY BEACH SAND NOURISHMENT	
U.S. STANDARD (SIEVE SIZE)	PERCENT PASSING BY (WEIGHT)
3"	100
1/4"	100-95
#4	95-90
#10	90-80
#40	80-25
#100	25-0
#200	0

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE A SAND SOURCE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM MATERIAL TESTING TO ENSURE THAT MATERIAL SOURCE MATCHES THE COLOR, GRAIN SIZE, AND DISTRIBUTION OF THE SAND ON THE COASTAL BEACH.
- THE SOIL PARTICLES SHALL BE ANGULAR TO SUB-ROUNDED AND CLASSIFIED SK.
- THE MINIMUM SPECIFIC GRAVITY OF SOIL PARTIALS SHALL BE 2.65.
- THE CONTRACTOR SHALL SUBMIT LABORATORY CERTIFICATION FOR EACH 1,000 C.Y. DELIVERED OR FOR EACH CHANGE OF MATERIAL SOURCE THAT CERTIFIES THE SOIL PROPOSED FOR BEACH FILL SATISFIES THE MINIM STATED HEREIN INCLUDING GRADATION CURVES AND COMPUTATION SHEETS.
- SAND SHALL BE FREE OF CONTAMINANTS: PCB'S, DIOXINS, HYDROCARBONS, OR OTHER TOXIC CHEMICALS & CONTRACTOR SHALL PROVIDE CERTIFICATION.
- CONTRACTOR SHALL PROVIDE SAMPLE AND TEST RESULTS TO THE ENGINEER FOR APPROVAL. ANY VARIATION IN THE SPECIFIED GRADATION MAY REQUIRE PLACEMENT OF ADDITIONAL FILL VOLUME BASED ON ENGINEERING ANALYSIS.

SELECTIVE DEMOLITION

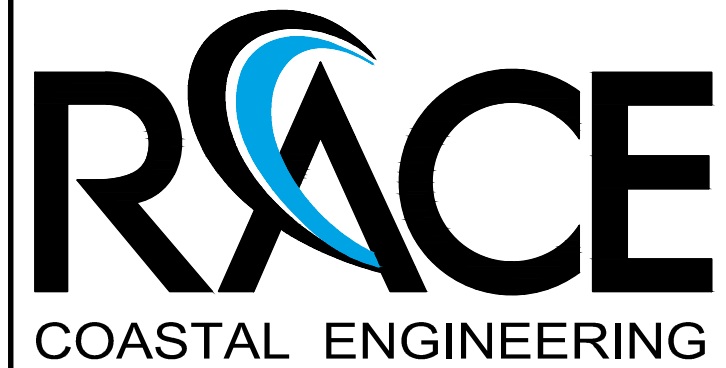
- DEMOLISHED MATERIAL, DEEMED UNACCEPTABLE FOR REUSE, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE COMPLETELY REMOVED FROM THE JOBSITE AND DISPOSED OF IN A SAFE AND LEGAL MANNER.
- THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING THE BID TO BECOME FAMILIAR WITH EXISTING CONDITIONS FOUND ONSITE.

EROSION & SEDIMENTATION CONTROLS

- LAND DISTURBANCE WILL BE KEPT TO A MINIMUM.
- PRIOR TO MOBILIZATION, EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED.
- WHENEVER POSSIBLE, EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL", MAY 2002.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
- ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING THE CONSTRUCTION PERIOD AS NECESSARY AND REQUIRED.
- THE GENERAL CONTRACTOR SHALL UTILIZE APPROVED METHODS/MATERIALS FOR PREVENTING THE BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES ONTO ADJACENT PROPERTIES AND SITE AREAS.
- THE GENERAL CONTRACTOR SHALL MAINTAIN A SUPPLY OF SILT FENCE (100' MIN) ON SITE FOR EMERGENCY PURPOSES.
- ALL DISTURBED LAWN AREAS OUT OF THE MAJOR CONSTRUCTION AREA THAT ARE TO BE LEFT EXPOSED FOR MORE THAN 30 DAYS SHALL BE PROTECTED WITH A TEMPORARY VEGETATIVE COVER. SEED THESE AREAS WITH PERENNIAL RYE GRASS AT THE RATE OF 40 LBS, PER ACRE (1 LB PER 1,000 SQ. FT.).
- THE GENERAL CONTRACTOR IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS EROSION AND SEDIMENT CONTROL PLAN. THE RESPONSIBILITY INCLUDES SUPERVISING THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFYING THE CONSERVATION STAFF PERSON OF ANY TRANSFER OF THIS RESPONSIBILITY AND CONVEYING A COPY OF THE CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED.

EXCAVATION AND BACKFILLING

- THE CONTRACTOR SHALL EXCAVATE, BACKFILL, AND GRADE THE SITE TO THE ELEVATIONS AND LIMITS SHOWN AND NEEDED TO MEET THE REQUIREMENTS OF THE CONSTRUCTION.
- GRADE THE AREAS ADJACENT TO BUILDINGS TO ACHIEVE DRAINAGE AWAY FROM THE STRUCTURES AND PREVENT PONDING.



611 Access Road Stratford, CT 06615  
Tel: 203-377-0663 www.racecoastal.com

OWNERSHIP AND CONDITIONS OF USE:

Drawings and Specifications, as instruments of professional service, are and shall remain the property of RACE Coastal Engineering, LLC. Documents are not to be used, in whole or in part, for other projects or purposes or by any other parties than those authorized by contract without the specific written authorization of RACE Coastal Engineering, LLC. The use of this document is contingent upon payment to RACE Coastal Engineering, LLC for services rendered. Non-payment shall give RACE Coastal Engineering, LLC the authority to bar document use by any and all parties.

THIS DRAWING IS COPYRIGHTED

REVISIONS:

NO.	DESCRIPTION	BY	DATE

NOT VALID WITHOUT ENGINEER'S SEAL:

**ISSUED FOR CONSTRUCTION**

PREPARED FOR:

CONSERVATION DEPT  
TOWN OF FAIRFIELD  
725 OLD POST RD  
FAIRFIELD, CT 06824

PROJECT:

PENFIELD BEACH  
ENGINEERED BEACH DESIGN  
FAIRFIELD BEACH ROAD  
FAIRFIELD, CT

DRAWING:

PROJECT NOTES

Designed By:	JAP	Date:	04/12/2017
Drawn By:	JAP	Scale:	As Noted
Checked By:	ADS	Project Number:	201644
CAD File:	PENFIELD20170407.DWG	Drawing No.:	2 of 05



**OWNERSHIP AND CONDITIONS OF USE:**

Drawings and Specifications, as instruments of professional service, are and shall remain the property of RACE Coastal Engineering, LLC. Documents are not to be used, in whole or in part, for other projects or purposes or by any other parties than those authorized by contract without the specific written authorization of RACE Coastal Engineering, LLC. The use of this document is contingent upon payment to RACE Coastal Engineering, LLC for services rendered. Non-payment shall give RACE Coastal Engineering, LLC the authority to bar document use by any and all parties.

THIS DRAWING IS COPYRIGHTED

**REVISIONS:**

NO.	DESCRIPTION	BY	DATE

NOT VALID WITHOUT ENGINEER'S SEAL:

**ISSUED FOR CONSTRUCTION**

PREPARED FOR:

CONSERVATION DEPT  
TOWN OF FAIRFIELD  
725 OLD POST RD  
FAIRFIELD, CT 06824

PROJECT:

PENFIELD BEACH  
ENGINEERED BEACH DESIGN  
FAIRFIELD BEACH ROAD  
FAIRFIELD, CT

DRAWING:

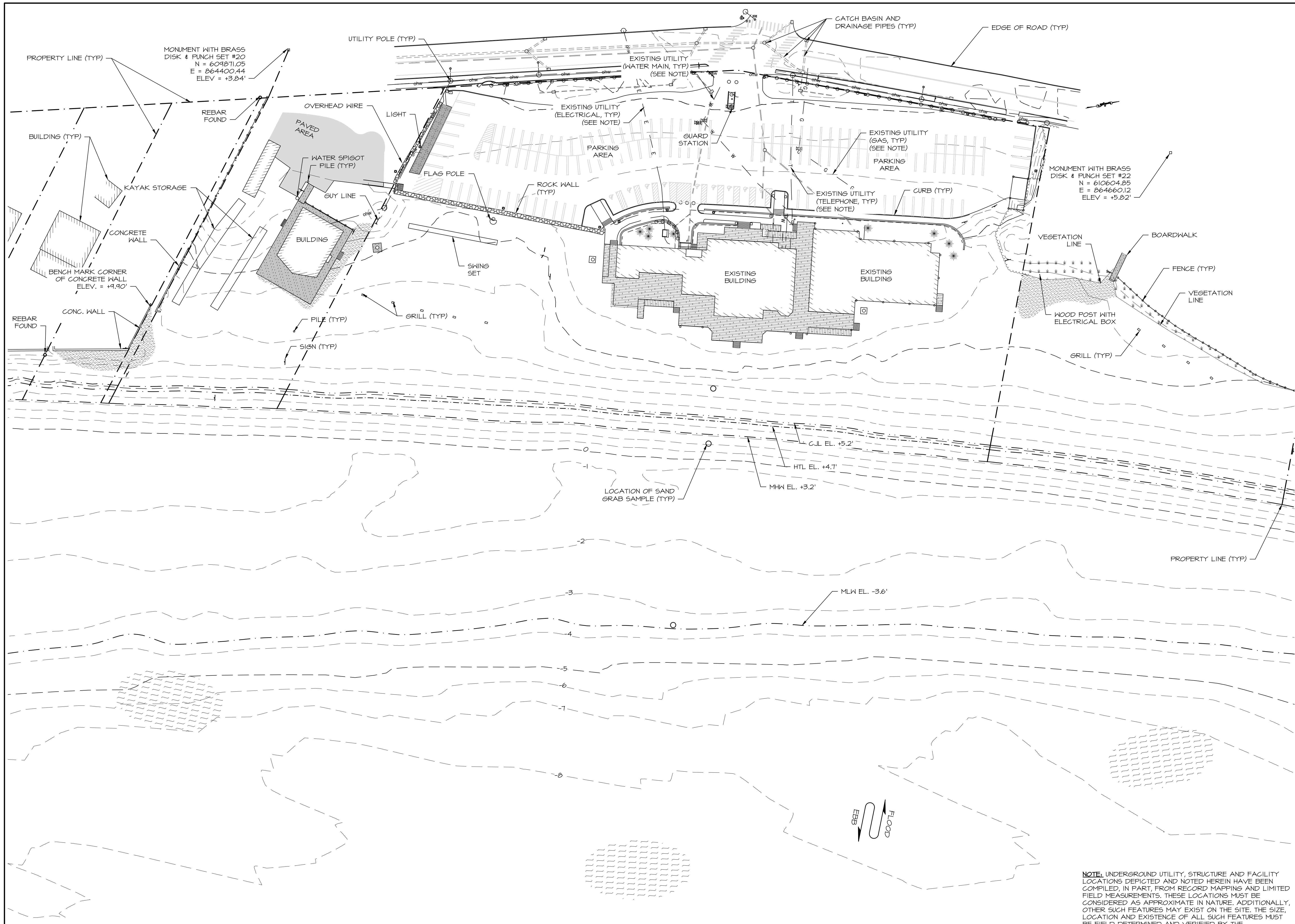
SITE PLAN

Designed By: JAP Date: 04/12/2017

Drawn By: JAP Scale: As Noted

Checked By: ADS Project Number: 201644

CAD File: PENFIELD20170401.DWG Drawing No.: 3 of 05



**SITE PLAN**

SCALE: 1" = 40'-0"



**OWNERSHIP AND CONDITIONS OF USE:**

Drawings and Specifications, as instruments of professional service, are and shall remain the property of RACE Coastal Engineering, LLC. Documents are not to be used, in whole or in part, for other projects or purposes or by any other parties than those authorized by contract without the specific written authorization of RACE Coastal Engineering, LLC. The use of this document is contingent upon payment to RACE Coastal Engineering, LLC for services rendered. Non-payment shall give RACE Coastal Engineering, LLC the authority to bar document use by any and all parties.

THIS DRAWING IS COPYRIGHTED

**REVISIONS:**

NO.	DESCRIPTION	BY	DATE

NOT VALID WITHOUT ENGINEER'S SEAL:

**ISSUED FOR CONSTRUCTION**

PREPARED FOR:

CONSERVATION DEPT  
TOWN OF FAIRFIELD  
725 OLD POST RD  
FAIRFIELD, CT 06824

PROJECT:

PENFIELD BEACH  
ENGINEERED BEACH DESIGN  
FAIRFIELD BEACH ROAD  
FAIRFIELD, CT

DRAWING:

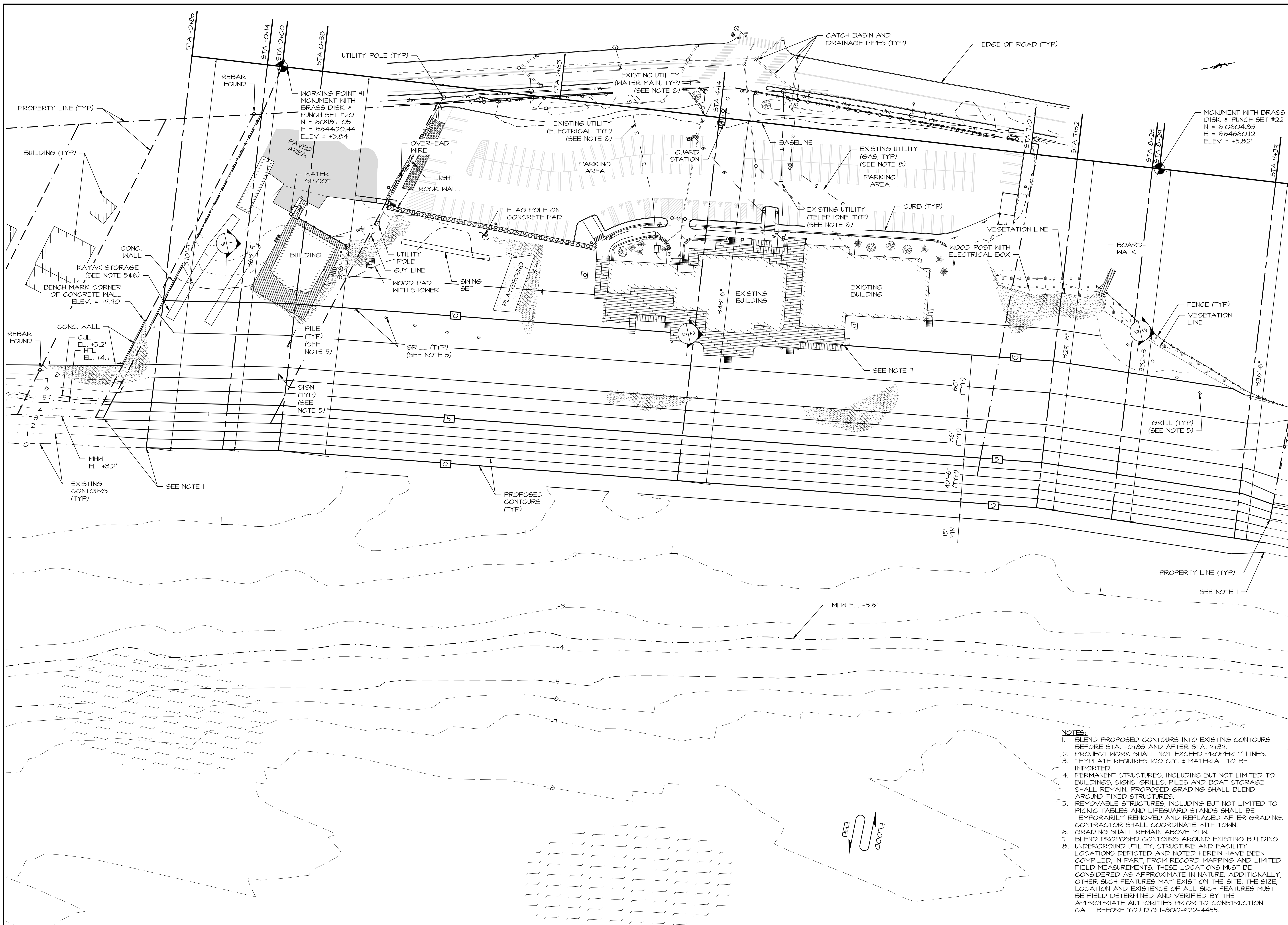
**GRADING PLAN**

Designed By: JAP Date: 04/12/2017

Drawn By: JAP Scale: As Noted

Checked By: ADS Project Number: 201644

CAD File: PENFIELD20170407.DWG Drawing No.: 4 of 05



- NOTES:**
1. BLEND PROPOSED CONTOURS INTO EXISTING CONTOURS BEFORE STA. -0+85 AND AFTER STA. 9+34.
  2. PROJECT WORK SHALL NOT EXCEED PROPERTY LINES.
  3. TEMPLATE REQUIRES 100 C.Y. ± MATERIAL TO BE IMPORTED.
  4. PERMANENT STRUCTURES, INCLUDING BUT NOT LIMITED TO BUILDINGS, SIGNS, GRILLS, PILES AND BOAT STORAGE SHALL REMAIN. PROPOSED GRADING SHALL BLEND AROUND FIXED STRUCTURES.
  5. REMOVABLE STRUCTURES, INCLUDING BUT NOT LIMITED TO PICNIC TABLES AND LIFEGUARD STANDS SHALL BE TEMPORARILY REMOVED AND REPLACED AFTER GRADING. CONTRACTOR SHALL COORDINATE WITH TOWN.
  6. GRADING SHALL REMAIN ABOVE MLW.
  7. BLEND PROPOSED CONTOURS AROUND EXISTING BUILDING.
  8. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREIN HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING AND LIMITED FIELD MEASUREMENTS. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-422-4455.

**GRADING PLAN**  
SCALE: 1" = 80'-0"



**OWNERSHIP AND CONDITIONS OF USE:**

Drawings and Specifications, as instruments of professional service, are and shall remain the property of RACE Coastal Engineering, LLC. Documents are not to be used, in whole or in part, for other projects or purposes or by any other parties than those authorized by contract without the specific written authorization of RACE Coastal Engineering, LLC. The use of this document is contingent upon payment to RACE Coastal Engineering, LLC for services rendered. Non-payment shall give RACE Coastal Engineering, LLC the authority to bar document use by any and all parties.

THIS DRAWING IS COPYRIGHTED

**REVISIONS:**

NO.	DESCRIPTION	BY	DATE

NOT VALID WITHOUT ENGINEER'S SEAL:

**ISSUED FOR CONSTRUCTION**

PREPARED FOR:

CONSERVATION DEPT  
TOWN OF FAIRFIELD  
725 OLD POST RD  
FAIRFIELD, CT 06824

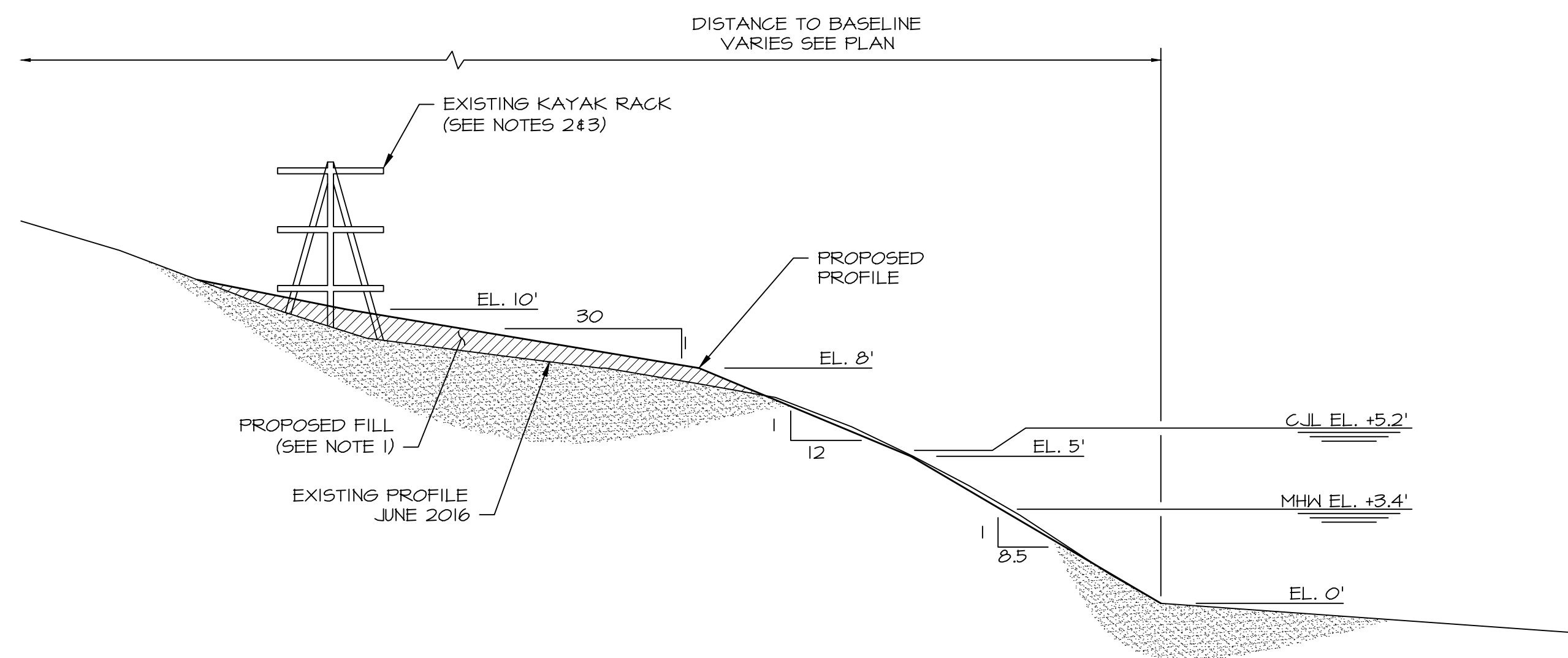
PROJECT:

PENFIELD BEACH  
ENGINEERED BEACH DESIGN  
FAIRFIELD BEACH ROAD  
FAIRFIELD, CT

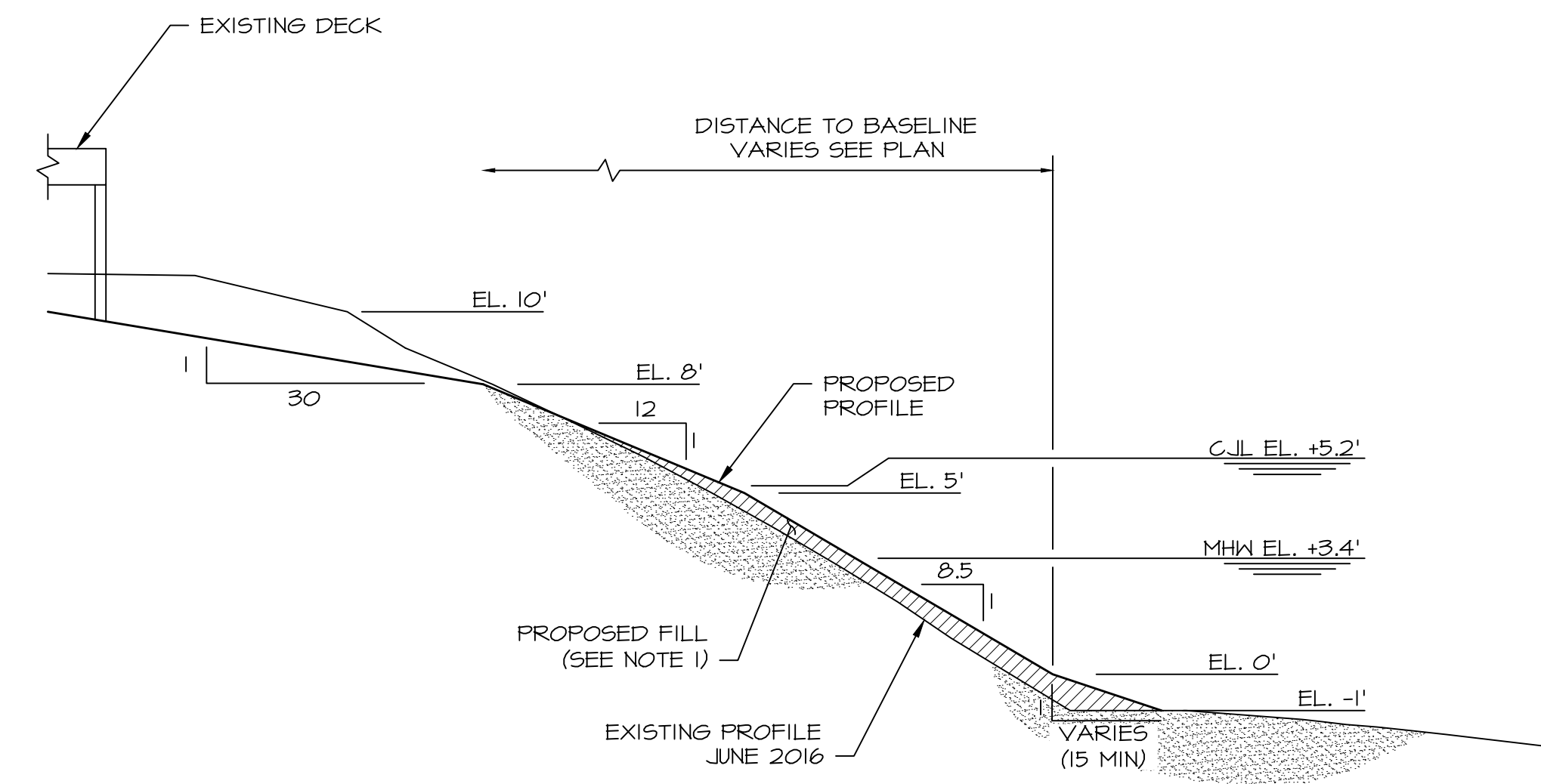
DRAWING:

SECTIONS

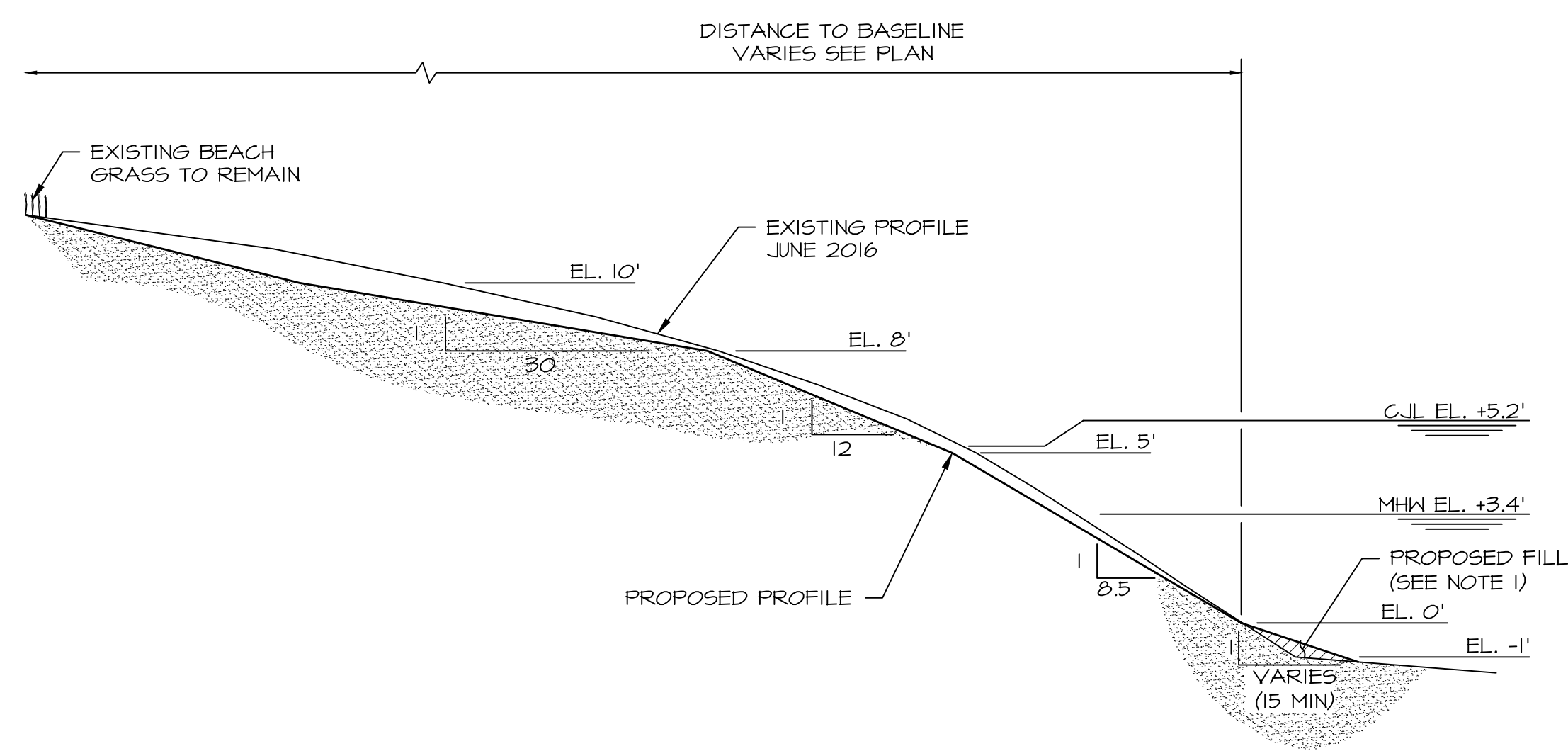
Designed By:	JAP	Date:	04/12/2017
Drawn By:	JAP	Scale:	As Noted
Checked By:	ADS	Project Number:	201644
CAD File:	PENFIELD20170401.DWG	Drawing No.:	5 of 05



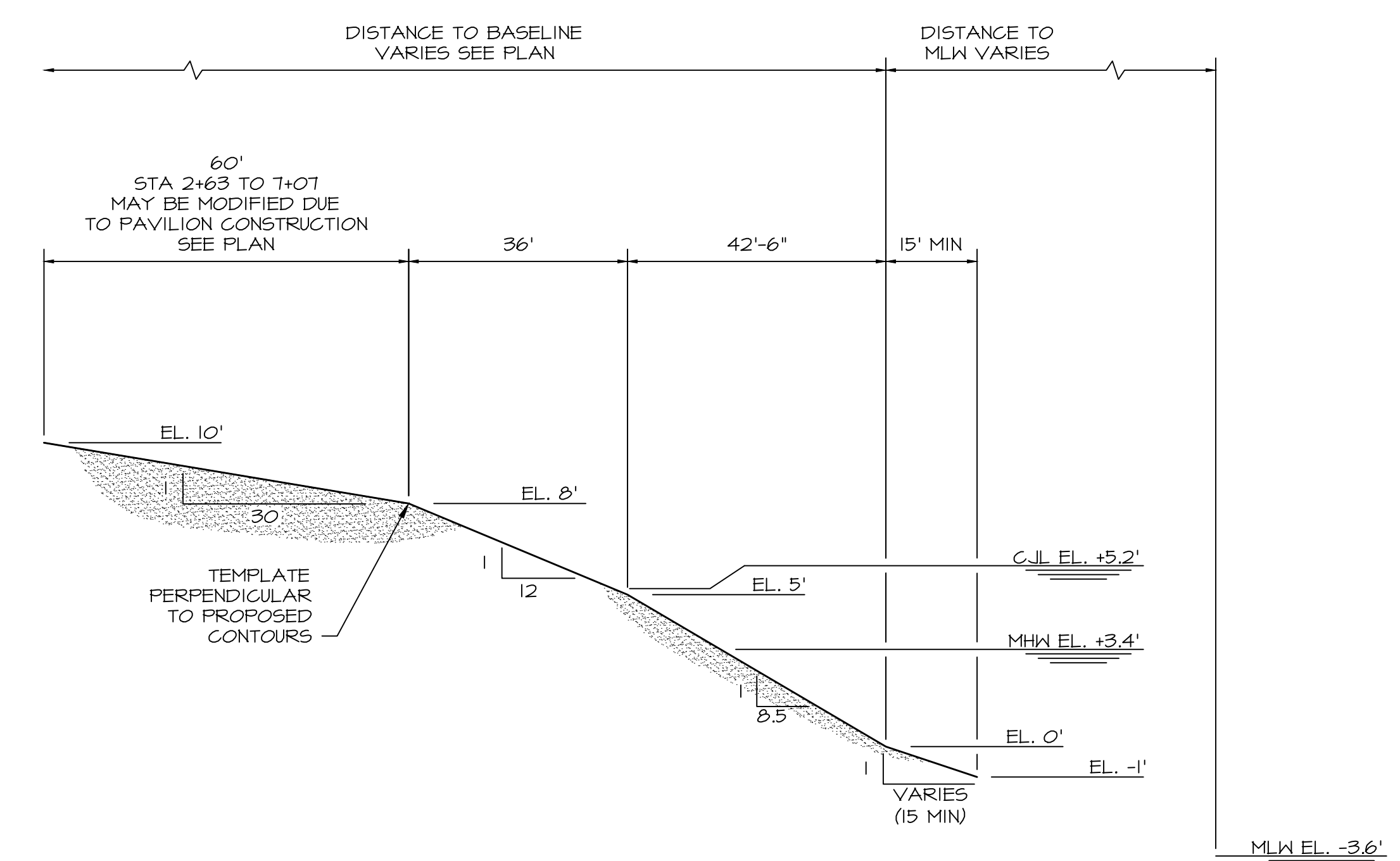
**SECTION 1**  
VERTICAL SCALE 1"=4'- HORIZONTAL SCALE 1"=20'



**SECTION 2**  
VERTICAL SCALE 1"=4'- HORIZONTAL SCALE 1"=20'



**SECTION 3**  
VERTICAL SCALE 1"=4'- HORIZONTAL SCALE 1"=20'



**PROPOSED TEMPLATE**  
VERTICAL SCALE 1"=4'- HORIZONTAL SCALE 1"=20'

- NOTE:**
1. TEMPLATE REQUIRES 100 C.Y. ± MATERIAL TO BE IMPORTED.
  2. PERMANENT STRUCTURES, INCLUDING BUT NOT LIMITED TO SIGNS, GRILLS, PILES AND BOAT STORAGE SHALL REMAIN. PROPOSED GRADING SHALL BLEND AROUND FIXED STRUCTURES.
  3. REMOVABLE STRUCTURES, INCLUDING BUT NOT LIMITED TO PICNIC TABLES AND LIFE GUARD STANDS SHALL BE TEMPORARILY REMOVED AND REPLACED AFTER GRADING. CONTRACTOR SHALL COORDINATE WITH TOWN.