

US Army Corps of Engineers Philadelphia District

Wanamaker Building 100 Penn Square East Philadelphia, PA 19107-3390 ATTN: CENAP-OPR

Public Notice

Public Notice No.

CENAP-OPR-2016-00439-46

NOVEMBER 24, 2020

Application No.

File No.

In Reply Refer to:

REGULATORY BRANCH

This District has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

The purpose of this notice is to solicit comments and recommendations from the public concerning issuance of a Department of the Army permit for the work described below.

APPLICANT: City of Philadelphia and John Bartram Association

CONTACT: Ms. Jennifer Waters

Urban Engineers, Inc. 530 Walnut Street Philadelphia, PA 19106

WATERWAY: Schuylkill River

LOCATION: At the waterward terminus of 56th Street, City of Philadelphia, Philadelphia County, Pennsylvania.

ACTIVITY: To construct a circular "FloatLab" floating educational structure within the Schuylkill River. The proposed project would consist of the installation of a partial landing platform and gangway that would lead out to the FloatLab ring (approximately 75 feet in diameter). The project would extend a minimum of 71 to 88 feet landward of the Federal Navigation Channel, would extend 130 feet waterward of the mean high water line, and would impact a total of 57 square feet through the discharge of approximately 78 cubic yards of fill within the river below the high tide line from pile and rip-rap placement.

The access deck/landing platform, an "L" shaped dock, would be 27' x 10' and 40' x 12' and would extend 45 feet waterward of the mean high water line. The structure would be constructed largely of steel and would be supported by nine concrete-filled, 16" diameter steel pipe piles. The piles would be driven by vibratory and impact hammer. A total of 10 square feet of waterway below the high tide line would be lost due to the placement of such concrete-filled piles. Prior to the placement of the 2 piles outside of the watercourse, existing rip-rap would be removed from above the high tide line along the bank, piles would then be driven, and 100 square feet (12 cubic yards) of rip-rap would then be replaced below the high tide line.

From the access deck/landing platform, a 65' long x 5' wide aluminum ramp would then extend to the 75' wide circular "FloatLab" structure. The structure would be tethered to five 36-inch diameter steel mooring piles by steel cable in a five-pointed star formation. The piles would be driven by rock socket method. A total of 35 square feet of waterway below the high tide line would be lost due to the placement of such concrete-filled piles.

The applicant has noted the following points. A waterline would be installed so that the platform, gangway and FloatLab ring can be cleaned, and a compost filter sock would be installed downslope of the waterline installation to protect wetlands that are located outside of the project area. A turbidity curtain would also be installed in the river and would temporarily impact approximately 0.55 acre (24,024 square feet) of open water around the project. Emergency egress lighting (1-foot candle) would be installed at handrail height on the FloatLab, dock, and gangway, which would generally shine light onto walking surfaces, rather than the river. Solar navigation lights would also be placed in the water around the dock. No lighting or sounds would be broadcasted into or near the river. Finally, the applicant has stated that the entire structure would stay in place throughout the year and is designed to withstand all weather events including the 100-year storm event.

PURPOSE: The applicant's stated purpose for the FloatLab is to highlight improvements of the water and not simply the waterfront and was designed for the purpose of educating and connecting the community to the Schuylkill River.

A preliminary review of this application indicates that species listed under the Endangered Species Act or their critical habitat pursuant to Section 7 of the ESA as amended, may be present in the action area. The ACOE will forward this PN to the US Fish and Wildlife Service and National Marine Fisheries Service with a request for technical assistance on whether any ESA listed species or their critical habitat maybe present in the area which would be affected by the proposed activity. The Philadelphia District will evaluate the potential effects of the proposed actions on ESA listed species or their critical habitat and will consult with US Fish and Wildlife Service and/or NOAA Fisheries as appropriate. ESA Section 7 consultation will be concluded prior to the final decision on this permit application.

The decision whether to issue a permit will be based on an evaluation of the activity's probable impact including its cumulative impacts on the public interest. The decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and welfare of the people. A Department of the Army permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this

proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Due to COVID-19, comments on the proposed work are encouraged to be submitted, by email, within 30 days to the District Engineer, U.S. Army Corps of Engineers, Philadelphia District at PhiladelphiaDistrictRegulatory@usace.army.mil. If it is necessary to provide a paper copy of your comments, they should be submitted by traditional mail within 30 days to: District Engineer, U.S. Army Corps of Engineers, Philadelphia District, Wanamaker Building, 100 Penn Square East, Philadelphia Pennsylvania 19107-3390.

With regard to Section 106 of the National Historic Preservation Act, this office has noted that a historic properties investigation has been conducted within the permit area. Historic properties eligible for or listed on the National Register of Historic Places (NRHP) are within the permit area but will not be affected by the proposed action. A determination of "No Effect" will be coordinated with the SHPO.

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act 1996 (Public Law 104-267), requires all Federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely effect Essential Fish Habitat (EFH). A preliminary review of this application indicates that, although the site is not designated as EFH, the project may have an effect on prey species of species of concern within EFH. The Philadelphia District will evaluate the potential effects of the proposed actions on EFH and will consult with NOAA Fisheries as appropriate. Consultation will be concluded prior to the final decision on this permit application.

With regard to compensatory mitigation, given the minor amount of fill below the high tide line for steel pile fill (approx. 145 square feet of aquatic resource loss), no compensatory mitigation is warranted.

In accordance with Section 307(c) of the Coastal Zone Management Act of 1972, applicants for Federal Licenses or Permits to conduct an activity affecting land or water uses in a State's coastal zone must provide certification that the activity complies with the State's Coastal Zone Management Program. The applicant has stated that the proposed activity complies with and will be conducted in a manner that is consistent with the approved State Coastal Zone Management (CZM) Programs of Pennsylvania. No permit will be issued until the State has concurred with the applicant's certification or has waived its right to do so. Comments concerning the impact of the proposed and/or existing activity on the State's coastal zone should be sent to this office, with a copy to the States' Offices of Coastal Zone Management.

In accordance with Section 401 of the Clean Water Act, a Water Quality Certificate (WQC) is necessary from the State government in which the work is located. Any comments concerning the work described above which relate to Water Quality considerations should be sent to this office with a copy to the State.

The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act.

Due to COVID-19, any person may request, by email, to the District Engineer at the PhiladelphiaDistrictRegulatory@usace.army.mil, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state, with particularity, the reasons for holding a public hearing. If it is necessary to provide a written request by traditional mail, such request should be submitted within the comment period specified in this notice to the District Engineer, U.S. Army Corps of Engineers, Philadelphia District, Wanamaker Building, 100 Penn Square East, Philadelphia, Pennsylvania 19107-3390.

Additional information concerning this permit application may be obtained by calling 215-605-7029, 215-656-6731, or by e-mailing Mr. David Caplan of my office at David.J.Caplan@usace.army.mil.

SCHAIBLE.TOD Digitally signed by SCHAIBLE.TOD.AARON. 1385323448
5323448
5323448
55323448

Todd A. Schaible Chief, Regulatory Branch

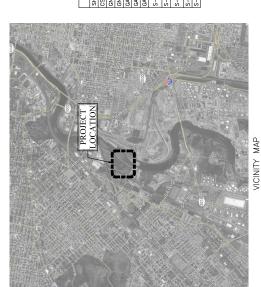
FLOATLAB

5400 LINDBERG BLVD., PHILADELPHIA, PA 19143

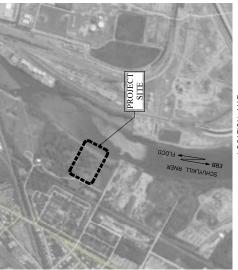
FOR

PHILADELPHIA MURAL ARTS ADVOCATES

1727-29 MT. VERNON ST., PHILADELPHIA, PA 19130







LOCATION MAP

ISSUED FOR PERMIT DATE 09/03/20

URBAN PROJECT NO. 2017610254.000

COCS-20 ASSE UPANTES
COCS-20 PENNT SCENESSON

CONSTRUCTION DOCUMENTS

Höweler+Yoon Architectur RCHITECT IOWELER+YOON ARCHITECTURE

ARCHITECT
HOWELER-YOON ARCHITECTURE
150 LINCOLN STREET #3A
BOSTON, MA 02111
T 617 517 4101
WWW.HOWELERYOON.COM

C.R. CUSHING & CO., INC.

NAVAL ARCHITECTMARINE ENGINEER C.R. CUSHING 30 VESEY STREET 7TH FLOOR NEW YORK, NY 10007 T + 1272-684-1180 F + 1212-285-1344 WWW.GRCGOCO.OM NUBBAN ENGINEERS

URBAN ENGINEERS
530 WALNUT STREET
PHILAGELPHA, PA 19106
T +1 215-222-3092
F +1 215-222-3092
WWW.URBANENGINEERS.COM

NOT FOR CONSTRUCTION USE ONLY FOR COORDINATION

SHOWN 1510

PB/MGW

FLOATLAB

5400 LINDBERGH BLVD PHILADELPHIA, PA 19143

COVER SHEET

CS CS-1

09/03/20

GENERAL NOTES

- DESIGN AND CORRECTIONS WAS COOKED WHEN THE PROCESS OF AN DIOLAND CORRECTION OF AN DEAVORS. THE PROCESS ONLY LAKE PRECEINED FOR PROCESS OF REMAINS WITH SWE REMAINS SHILL HAVE PRECEINED FOR PROCESS. THE PRECEINED FOR PROCESS OF THE PROPERTY SITE OF THE PROCESS OF
- THE CONTRACTOR SHALL RELD VERITY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO MOBILIZING. ALL EDISTING, A PROPOSED DIMENSIONS AND LEFT WHEREID BY THE DEVANCES SHALL BY WEREID BY THE CONTRACTOR PRIOR TO ANY PARRICKNOT OF ERECTION. NOTITY THE ENGINEERS OF ANY DESCREAMICES IMMEDIATELY.
- THE CORPORATION SHALL READOR SHOULT RESPONSE WAS USED ABOUT ABOUT SHALL MAD READ ABOUT THE WASTERN AND DESIDE MATERIAL, AND DESIDES THE WASTERN, UNDO DESIDES OF ALL MATERIAL, AND DESIDES SHE THE COMMENCING SERVICES OF ALL MATERIAL, IN ACCIOENANCE WITH AMOUNT STREAM TO SECURIOR STREAM SHOULD SHALL MATERIAL, STATE AND INCOLUMNOS.
 - THE CONFOCIOR SALE JACK STANDER CONFORM CHARGES, ABOOLS, TRANSILLAS, TANDAS, THROUTY MENDERY MENDERS, AND THER PROCESS AS RECESSAR TO PRESENT OF PRESENT CONFINCTION MATERIALS FROM ENTERN THE WITH AND LEWING THE RESPONSIBLE FOR CLEANIP OF THE STIE. THE CONFINCTION SALE BE RESPONSIBLE FOR CLEANIP OF THE THE THE THROWS.
 - THE CONTRACTOR SHALL ABDE BY ALL APPLICABLE ENVIRONMENTAL PROTECTION STANDARDS, CODES, LAWS, REGULATIONS, AND PERMITS.
- THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO AS TO NOT INTERFERE WITH, OR BE DETRAMENTAL TO, VESSEL AND VEHICLUAR TRAFFIC DURING THE COURSE OF THE WORK.
- ALL STRUCTURES ARE DESIGNED TO BE SELF-SUPPORTING AND STRBLE ATTER ERECTION IS FILLY COUNTER. IT IS THE REPORTING TO THE COUNTER OF THE COUNTER SHALL STREAM STREAM STREAM SHALL SHA
- THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.

CONCRETE AND REINFORCING STEEL

- ALL CONCRETE WORK SHALL COMPLY WITH THE RECOMMENDATIONS OF ACI 301 AND ACI 318, UNLESS OTHERWISE SPECIFED.
- FOLLOW THE REQUIREMENTS OF ACI 306 WHEN POURING CONCRETE IN COLD WEATHER.
- ALL CONCRETE SHALL BE LIGHTWEIGHT CONCRETE WITH A MAXIMUM DENSITY OF 100 PCF.
- THE MAXIMUM CONCRETE LIFT HEIGHT IS 5 FEET. EACH LIFT SHALL BE PROPERLY CURED FOR A MINIMUM OF 3 DAYS, OR REACH 1500 PSI, PRIOR TO PLACING ADDITIONAL LIFTS.
- CAST-IN-PLACE CONCRETE STRENGTH SHALL BE A MINIMUM OF 3000 PSI AT 28 DAYS, U.N.O.
- THE CONTRACTOR SHALL MAINTAIN PROPER CURING PROCEDURES FOR A MINIMUM OF 7 DAYS AFTER CONCRETE IS POURED. NONMETALLIC NON-SHRINK GROUT STRENGTH SHALL BE A MINIMUM OF 5000 PSI AT 28 DAYS, U.N.O.
- ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING STEEL SHALL CONFORM TO THE ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, ACI 315.
- RENFORCING STEEL FOR CAST—IN-PLACE CONCRETE SHALL CONFORM TO ASTM A 615, GR 80, EXCEPT REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A 706. MINIMUM CONCRETE COVER FOR ALL REINFORCING SHALL BE 2 INCHES, U.N.O. 6
- ALL CONSTRUCTION JOINTS SHALL BE KEYED, U.M.O. JOINTS SHALL BE PROVIDED AS NECESSARY AT LOCATIONS, AND USING METHODS, APPROVED BY THE ENGINEER. Ë
- CHAMFER ALL EXTERNAL EXPOSED CORNERS OF CONCRETE WITH A 1 INCH, 45-DEGREE CHAMFER, U.N.O. ALL REINFORCING BAR SPLICES SHALL BE TENSION LAP SPLICES, IN ACCORDANCE WITH ACI 318, U.N.O. 5 E 4
 - - WELDING OF REINFORCING STEEL SHALL BE PERFORMED IN ACCORDANCE WITH AWS D1.4.

SURVEY NOTES

- SURVEY INFORMATION SHOWN ON THESE PLANS IS BASED ON A FIELD SURVEY, WHICH WAS CONDUCTED BY HUNT ENGINEERING DURING THE MONTH OF JANUARY, 2020.
- DATUM: MEMEZONTAL = PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83. VERTICAL = MAYD8
- THE BASIS OF BEARING FOR THIS SURVEY IS GRID NORTH (PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, ZONE, NAO 83.)
 - RIGHT-OF-WAY AS SHOWN IS PLOTTED FROM GIS DATA AND SHOULD BE CONSIDERED APPROXIMATE.
- PROPERTY LINES AS SHOWN ARE DERIVED GIS DATA FROM THE CITY OF PHILADELPHIA AND SHOULD BE CONSIDERED APPROXIMATE.
- A DESIGN PHASE PENNSYLVANIA ONE-CALL WAS PLACED FOR THIS PROLECT ON JANUARY 16, 2020 WITH THE FOLLOWING SERIAL NUMBER BEING ASSIGNED: 20200162272. FLOOD ZONE BOUNDARIES ARE TAKEN FROM FEMA GIS.

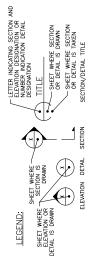
STRUCTURAL AND MISCELLANEOUS STEEL

- ALL STEL, WORK SHALL BE REPRODUDED IN ACCIDENCE, WITH THE LUTEST EDITION OF ARS, SPECIFICATIONS FOR THE PROPERTY. WHICH ARE TO BE CONFINED BY THE LUTEST RESIDENCE OF THE LUTE
- STRUCTURAL AND MISCELLANEOUS STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING, U.N.O.:

WIDE THANGE SHAPES: HP PILES: PIPE: PILES: OTHER SHAPES AND PLATES: OTHER SHAPES BARS AND PLATES:	ASTIN A 922. GRADE 50 ASTIN A 572. GRADE 50 ASTIN A 252. GRADE 3, Fy = 50 KSI ASTIN A 20. GRADE 8, TYPE 5 ASTIN A 500 ASTIN A 500 ASTIN A 56. Fy = 36 KSI ASTIN A 295. Fy = 36 KSI
CHOR BOLTS:	ASTM A 449
TEL SHEET PILE (SSP):	ASTM A 572, GRADE 50
13:	ASTM A 563
SUCOC.	ASTA F 436

- 3. IF OVERSIZED HOLES ARE USED, WASHERS MUST BE EXTRA THICK, AND MAY REQUIRE WELDING.
- ALL MSCILLARDIS RETAILS NOLLINGENTS, WARREST, WITE, MACES, WITE, MACES, MO OTHER PREPARADOR SHALL BEFLIAMED TO SHALL BEFLIAMED TO SHALL BEFLIAMED TO THE MACED WHITH THE REQUERENTS OF ASTM, 1723 MAD OR ASTM, 1723 MAD OR ASTM, 1734 MAD OR ASTM, 1734 MAD OR ASTM, 1734 MAD OR ASTM, 1734 MAD OR ASTM, 1735 MAD OR ASTM, 1734 MAD OR ASTM, 1735 MAD OR ASTM, 173
- FIELD THEAT DAMAGED GALWANZED FINISH WITH TWO COATS OF HIGH ZING DUST GAUGE PART, COLD GALWANZING COMPOUNDS OR APPROVED EDGAL, IN ADDITIONAL, ALL EDGGED THEAGEDS SHALL BE CLEMED AND PAINTED COMPOUNDS TO THE MOST AND THE SIZE OF THE MOST AND THE SIZE OF THE SIZE OF THE WORLDAND OF THE WITHOUT OF THE WORLDAND OF THE WO
- THE TYPE, SIZE, SPACING, AND ALIGNMENT OF CONNECTING HARDWARE SHOWN ARE CRITICAL AND MUST BE MAINTAINED M. REDIDOS SHALL CONFERN OT DEL HUSTE EDRING OF RES. D.1.1, UNLA, LI WEIGN SHALL HE BADER WITH ETONS. ELECTRODES, UNLESS HOHER STENSORI ELETRODES ARE REQUERED OF WAS D1.1. GREWALT'S ELECTRODES SHALL BY ON OR MADED AT STAFF OF EACH SHIFT, FOLLOW THE ATMOSPHERIC EDROSSHEE LUMI'S AND BANNOR REQUIREMENT OF CALANTE S OF NAMED 11.
- WELDING PERSONNEL AND PROCEDURES ARE TO BE QUALIFIED PER AWS D1.1, U.N.O.
- MINIMUM SIZE OF FILLET WELDS SHALL BE % U.N.O.
- WHEN THE 'ALL-AROUND' WELDING SYNBOL IS USED AT AN END CONNECTION OF A ROLLED SKAPE, THE CONTRACTOR SMALL TERMANTE THE WED AT EACH OF THE FAVORE EDGES, AND ONE WELD THEOMESS AWAY FROM EACH MITTERSTORY OF THE WIRE AND FLANCE, UNDO, LAND.
 - DOWELS, BOLTS, RENFORCEMENT OR OTHER STEEL TO BE EMBEDDED IN CONCRETE SHALL BE INSTALLED USING HILTI HIT-HY 200 EPOXY, OR APPROVED EQUAL, U.N.O.

	MIN. LAF	MIN. LAP SPLICE	MIN. DEVELOPMENT LENGTH	DEVELOPMENT LENGTH
BAR SIZE	TOP BAR (INCHES)	OTHER BAR (INCHES)	TOP BAR (INCHES)	OTHER BAR (INCHES)
#4	19	16	15	12
9#	24	19	19	14
9#	53	22	22	17
47	42	32	32	25
so #⊨	48	37	37	28
6#	09	46	46	35
#10	74	29	57	44
#11	88	89	89	52



SOUTH

14.0.39 ESSON FACIO EDAVIRO (FED.) 14.0.39 ESSON FACIO EDAVIRO (FED.) 14.0.30 ESSON FACIO ELANIRO (FED.) 14.0.30 ESSON FA **ELEVATIONS:**

CIVIL/STRUCTURAL ABBREVIATIONS, U.N.O.

MISCONIA MERCINS
MISCONIA MERCINS
MEN STATE PROVING
MISCONIA ON OR MISTIN
MENN STATE LENE
MENN OF 1929 TO VERTICAL
MOTINI OF 1929

CONSTRUCTION DOCUMENTS

NGVD-29

ALLEWAND WATCHARL STATEMENT STATEMEN

A MARK A

C.R. CUSHING

ON CENTER OUTSTORE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION HEALTH ADMINISTRATION POLYMYNT, CHICKED REINFORCING REINFORCING REINFORCED CONCRETE PIPE REQUIRED

& CO., INC.

ARCHITECT
HOWELER'S YOUN ARCHITECTURE
150 LINCOLN STREET #3A
BOSTON, MA 02111
T 617 517 4101
WWW.HOWELERYOON.COM

Höweler+Yoon Architect

NAVAL ARCHITECTMARINE ENGINER C.R. CUSHNIG 30 VESEY STREET TH FLOOR NEW YORK IN 10007 T + 1272-964-1190 F + 1212-2985-134 WWW.GRYDD C.W

ESS STEEL SHEET PILE IFICATION

FOUNDATION FEET PER SECOND FIBERGLASS REINFORCED PLASTIC FAR SIDE LD STRESS

HEST ASTRONOMICAL TIDE TIDE LINE

530 WALNUT STREET
PHILADELPHA, PA 19106
T + 1 215-922-9080
F + 1 215-922-9080
WWW.URBANENGINEERS.COM

THROUGH
TOP OF CONCRETE
TOP OF STEEL
TOP OF STEEL
TOPLES NOTED OTHERWISE
FOLITRA HIGH MOLECULAR WEIGHT

ove YARD
ACTRIC TON
SHORT TON
TO BE TO BE DEFERMINED
TEMPORARY
THICKNESS
THROUGH
OF

EST ASTRONOMICAL TIDE OR

WIDTH WIDE FLANGE BEAM OR WEST WORK POINT WALL THICKNESS WEIGHT

JUITED STATES ARMY CORPS OF ENGINEERS

POUND LINEAR FEET LONG LONG LEG VERTICAL LENGTH OVERALL LONGITUDE

WEIGHI NUMBER PERCENT PLATE AND AT BY DAMETER

NOT FOR CONSTRUCTION USE ONLY FOR COORDINATION

AS SHOWN 15	1510 060 60 81
	D/ Mon

FLOATLAB

5400 LINDBERGH BLVD PHILADELPHIA, PA 19143

GENERAL NOTES

ISSUED FOR PERMIT DATE 09/03/20

S S

09/03/20

UN I

DESIGN CRITERIA

= II = 7–10	= 100 PSF	= 25 PSF	= 115 MPH = 0 = 360	1 1.00 1 1.00
. ASCE RISK CATEGORY ASCE CODE REF	. LIVE LOADS: GENERAL LIVE LOAD	5. SNOW LOAD: GROUND SNOW LOAD	I. WIND: BASE WIND VELOCITY APPROACH ANGLE	N. SEGULATION OF SEGULATION OF SEGULATION OF SEGULATIONS: ACCELEATIONS: SECTION, RESPONSE COST.:
÷	6	ri	4	κ i

SU1 = 0.096	= 6.7 FPS = 0 - 10' (EBB ONLY)	= 3 FPS = 0' = 10'
	6. CURRENT: MAX CURRENT VELOCITY (100 YR) APPROACH ANGLE	OPERATING (SERVICE) CURRENT VELOCITY APPROACH ANGLE

- = 1000 LBS = 6.7 FT/S = 0.75 s MATCHE MOORING DESIGN CRITERA (FROM C.R. CUSHING):
 MAY PER PILE
 MAX 1/R-D/R DISPLACEMENT
 MAX 1/S-D/R DISPLACEMENT
 MAX 1/S-D/R DISPLACEMENT
 MAX 1/S-D/R DISPLACEMENT
 MAX 1/S-D/R DISPLACEMENT
 MAX 1/R-D/R DISPLACEMENT
 MAX 1/R DEBRIS LOAD (PER ASCE 7-10 C5-3):
 OBJECT WEIGHT
- DESIGNED BY C.R. CUSHING. = 24 KIPS = 16 KIPS = XX FI = XX FI E XX FI EDURE HAS BEEN I

- THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE AVAILABLE SOIL BORING INFORMATION. IF AVAILABLE, THE SECTECHNICAL INVESTIGATION REPORT FOR THIS PROJECT CAN BE OBTAINED FROM THE OWNER.
- 2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY UNUSUAL SOIL CONDITIONS IMMEDIATELY
- THE CONTRICTOR SHALL BECOME FAMILIAR WITH THE HITDROGRAPHIC SURVEY PROVIDED IN THE BID PACKAGE, AND DETENMENT UNFORMENT IN FACIOUSLY, IN FACIOUSLY, INFORMATION IN NEEDED, THE CONTRICTOR MUST GRAPH IN AT THE CONTRACTOR'S COST PROPE. TO SHAUTTIME A BID.
- THE CONTRACTOR SHALL TAKE CARE WHEN USING HEAVY EQUIPMENT IN THE VICHITY OF EXCANATED SLOPES, NO WORK SHALL SHALL BE PERFORMED IN THE VICHITY OF SLOPES THAT ARE SATURATED FROM HEAVY RAINS, OR THROUGH WHICH REGOLDERATER IS ACTURATED SATURATED IS ACTURATED SHANING.
- THE CONTRACTOR SHALL BE RESPONSBLE FOR THE DESIGN, INSTALATION AND FINAL GLEMONGE OF ANY REQUIRED WEEDING UDGENWARMS, SHORING, FALSEWORK, FORMINGN, TELPHONEY SUPPORT, AND TELPHONEY BROANG OF DESIGNS SHOUTHORS.
- EXISTING AND NEW STRUCTURES SHALL NOT BE USED AS FALSEWORK FOR PILE DRIVING, U.N.O. OR IF PRIOR WRITTEN APPROVAL IS GRANTED BY THE ENGINEER.
- STEEL PIPE PILES SHALL BE WELDABLE IN ACCORDANCE WITH AWS D1.1. SPIRAL WELD PIPE PILES SHALL ONLY BE USED WITH THE WRITTEN APPROVAL OF THE ENGINEER.
- b. PIE DRINGWING LER BUTHED WITH A SEST STRATE OF LEROW ADJUSTA CAMBAGE, AND PROMISELY OF LOVER THE AREA.
 9.1. FOR INHECT DRINGS, THE RANGE WITH A LIGHT DRINGS, HE DANIESCE, WITH AN INTILL, SET OF THEE TAMADES. STREETS, AT A SERVICES A LOSS DESTINATED ON FOR A DEMONSTRATE OF A DESTINATION WITH A DESTINATION OF THE SERVICES OF A SERVICED DRINGS, PROMISELY OF THE SERVICES OF A SERVICED DRINGS, PROMISELY OF THE SERVICES WITH A RESIDENCE PROMISELY COLORED OF A SERVICED DRINGS, PROMISELY OF THE SERVICES WITH A SERVICE BUTHEN A SERVICE WITH SERVICES WITH A SERVICE WITH SERVICE WI

PILE TESTING & DRIVE CRITERIA

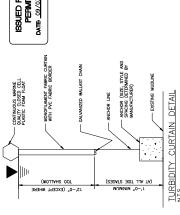
- . STANDARD PLES SHALL BE DRIVEN TO ACHEVE THE POLLOMNO ALLOWABLE COPACITES.
 1.1. 10 FINAL SHALL BE DRIVEN TO ACHEVE A 22 TON ALLOWABLE COPACITY IN COMPRESSION, AND A 5.5 TON 1.2. THE WARRIEL CHACKTY IN INFINITY.
 1.2. THE WARRIAN FACTORS OF SMETY ON THESE ALLOWABLE CHACKTIRES SHALL BE 2.25 ON COMPRESSION, AND 3.0 ON U.B.FISH.
- THE CONTRACTOR SHALL PERFORM AND SUBJUT THE RESULTS OF DRIVENBLITY ANALYSES BASED ON BORING B-1 OF THE ESCHOR PROPERT OF DETERMINE THE SECFICIATIONS OF THE HAMBER TO BE LOSS FOR PRIVING STANDARD PLLES TO THE PEDUIED ALLOWING CAMPLIES. THIS HAMBER WILL BE REVIKED BY THE ENGHEER PRIOR TO USE.
- A THE CONTROLING SHALL EXPEND AND SHALL THE RESULTS OF PRIMARY TESTED AND CHARGE ANALYSES OF THE TEST THE THE THE THE THREE THE THREE THE THREE THE THREE THE THREE THE THREE THREE
 - 4. SEE THE TECHNICAL SPECIFICATIONS FOR FURTHER DETALS ON PILE TESTING REQUIREMENTS.

- SHIMS: CLEAR SELECT STRUCTURAL WHITE DAK HEARTWOOD, EDGE SAWN ().E. GRAIN TO BE ROUGHLY PERPENDICULAR TO THE BEARING FACES OF THE SHIM), U.N.O.
- OTHER TIMBER: SELECT STRUCTURAL MARINE GRADE SOUTHERN PINE THAT IS ROUGH CUT, U.N.O.
- LED HOLES (OF LAG SERVINE REPORTS DATE FOLLOWS.)

 A THE CLARGENESS USEL TO SINE SHAME SHALL HAVE THE SAME DAMETER AS THE SHAME, AND THE SAME ERROR OF PRESENCENCY AS THE ELROR HAVE THE SHALL BET LESTED HAVE THE SHALL BET SHALL SHALL BE DEPOSED FOR SHALL HAVE A DAMETER EDUAL TO 702 OF THE SHAME DAMETER SHALL BE DEPOSED TO THE FILLD BEDNING SHALL BET DEPOSED TO THE FILLD BEDNING THE TOTAL SHALL BET DEPOSED TO THE FILLD BEDNING THE TOTAL SHALL BET DEPOSED TO THE FILLD BEDNING THE TOTAL SHALL BET DEPOSED TO THE FILLD BEDNING THE TOTAL SHALL BET DEPOSED TO THE FILLD BEDNING THE TOTAL SHALL BET DEPOSED TO THE FILLD BEDNING THE TOTAL SHALL BET DEPOSED TO THE FILLD BEDNING THE TOTAL SHALL BET DEPOSED TO THE FILLD BEDNING THE TOTAL SHALL BETTER T
- THE THREADED PORTION OF THE LAG SCREW SHALL BE INSERTED IN ITS LEAD HOLE BY TURNING WITH A WRENCH OR BY ROTATING EQUIPMENT, NOT BY DRIVING WITH A HAMMER. 4
- SOAP OR OTHER LUBRICANT SHALL BE USED ON THE LAG SCREWS OR IN THE LEAD HOLES TO FACILITATE INSERTION AND PREVENT DAMAGE TO THE LAG SCREW.

-2 IN. x 2 IN. WOODEN STAKES PLACED 10 FT ON CENTER

COMPOST FILTER SOCK— BLOWN/PLACED FILTER MEDIA—



EROSION & SEDIMENT CONTROL NOTES:

C.R. CUSHING

& CO., INC.

Höweler+Yoon Architectu

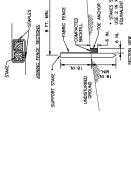
ARCHITECT
HOWELER+YOON ARCHITECTURE
150 LINCOLN STREET #3A
BOSTON, MA 02111
T 617 517 4101
WWW.HOWELERYOON.COM

- THE CURTAIN HEIGHT SHALL NOT EXCEED 12 FT, AND SHALL BE SHORT ENOUGH TO MAINTAIN A 1 FT GAP BETWEEN ITS BOTTOM AND THE MUDLINE AT MEAN LOW WATER. 5
- UARIES WITH OTHERWISE, THE UNBERTON CHIRAN SHALL BE A THROUT PIFE IF BEAMER SLY APPERED BEING THE WAR THE WORLD THE USE OF THE USE OF THE USE OF THE PROPERED FOR PAPERED TOWNERS. WHEN PROPED EDWARDST, WHERE WO THAT FROM SHE USES, A REPORT PROPERED BEAMER SPECIFICATIONS, ALONG WITH THE WANUFSCHERFS RECENTIONERS. A ROWGENED COMMITTION FOR USE.

NAVAL ARCHITECTMARINE ENGINER C.R. CUSHING 30 VESEY STREET TH FLOOR NEW YORK IV 10007 T + 1212-964-1190 F + 1212-286-134 WWW.SRCDO.O.M

530 WALNUT STREET
PHILADELPHA, PA 19106
T + 1 215-922-9080
F + 1 215-922-9080
WWW.URBANENGINEERS.COM

- - ATTACH BUOYS WITH NAVIGATION LIGHTS WHERE REQUIRED BY THE COAST GUARD.



ISSUED FOR DATE 09/03/20

CONSTRUCTION DOCUMENTS

- A PROMING THERROIT CHERMA SHALL BE PACED TO ENCOWERS ARES WHERE SETDREFT WAY BE GENERALD SA RESULT OF PROLECT WORK. A THEBIOTY CHEMA WIST BE IN PLACE FOR ACTIVITIES WAY CENERAL TUBERDY. MICHURNER PILE RISALLATION PLACING CONCRETE UNDERWAYER DEBENS FRANCH, AND DEMOCRITOR.
- 8°6 EROSION CONTROL SEDMENT LOGS SHALL BE PUACED ALONG THE WATER'S EDGE IN ALL AREAS WHERE SEDMENT OR RUNCH OF THE PROJECT, TO PREVENT THE DIRATION OF THE PROJECT, TO PREVENT THE DISAMARGE OF SEDMENTS INTO THE WATER.

6 IN. USE 2 IN X 2 IN (±3/8 IN.) WOOD OR EQUIVALENT STEEL (U OR 1) STAKES TOE ANCHOR TRENCH

NOT FOR CONSTRUCTION USE ONLY FOR COORDINATION

FABRIC SHALL HAVE THE MINIMUM PROPERTIES AS SHOWN IN TABLE 4.3 OF THE PA DEP EROSION CONTROL MANUAL. SILT FENCE SHALL BE PLACED AT LEVEL EXISTING GRADE. BOTH ENDS OF THE FENCE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DECREES TO THE MAIN FENCE ALIGNMENT. FABRIC WIDTH SHALL BE 30 IN. MINIMUM. STAKES SHALL BE HARDWOOD OR EQUIVALENT STEEL (U OR T) STAKES. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH HALF THE ABOVE GROUND HEIGHT OF THE FENCE.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNDEF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 34 HOURS OF INSPECTION.

BIODEGRADARIE. COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; CHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYROPYTENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

STABILIZATION OF THE AREA TRBITARY TO THE SOCK, STAKES SHALL BE REMONED. THE WELL ELFT IN HOLKE AND VEGETATION OF REMONDED. IN THE LATTER CASE, THE MESH BE UT OFFEN AND THE MUCHS SPREAD AS A SOIL SUPPLIABENT.

STANDARD CONSTRUCTION DETAIL #4-1 COMPOST FILTER SOCK NOT 10 SOME

accumulated sediment shall be removed when it reaches 1/2 the above ground height of the barrier and disposed in the manner described elsewhere in the plan.

FRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

CHONOST PITERS DOCK SHALL BE PACED AN ESTINGN LELEC, ROBLE, BOTH DADS OF THE WARREN SHOULE BE ETRIDIED AT LESTS BETEL UP, SLOPE AT 48 DEGREES TO THE MAN BARREN LAKANENT, MANULL SLOPE LENDTH ADOLE, WAY BARREN SHALL NOT EXCEED THAT SPECIFIED FOR THE STATE OF THE SOCK AND THE SLOPE OF ITS TRIBUTINAY AREA. SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

-2 IN. x 2 IN. WOODEN STAKES PLACED 10 FT ON CENTER

UNDISTURBED AREA PLAN VIEW

DISTURBED AREA

PB/MGW

1510

FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY STABILIZED. any section of silt fence which has been underwined or topped shall be immediately replaced with a rock filter outlet (standard construction detail # 4-6).

5400 LINDBERGH BLVD PHILADELPHIA, PA 19143

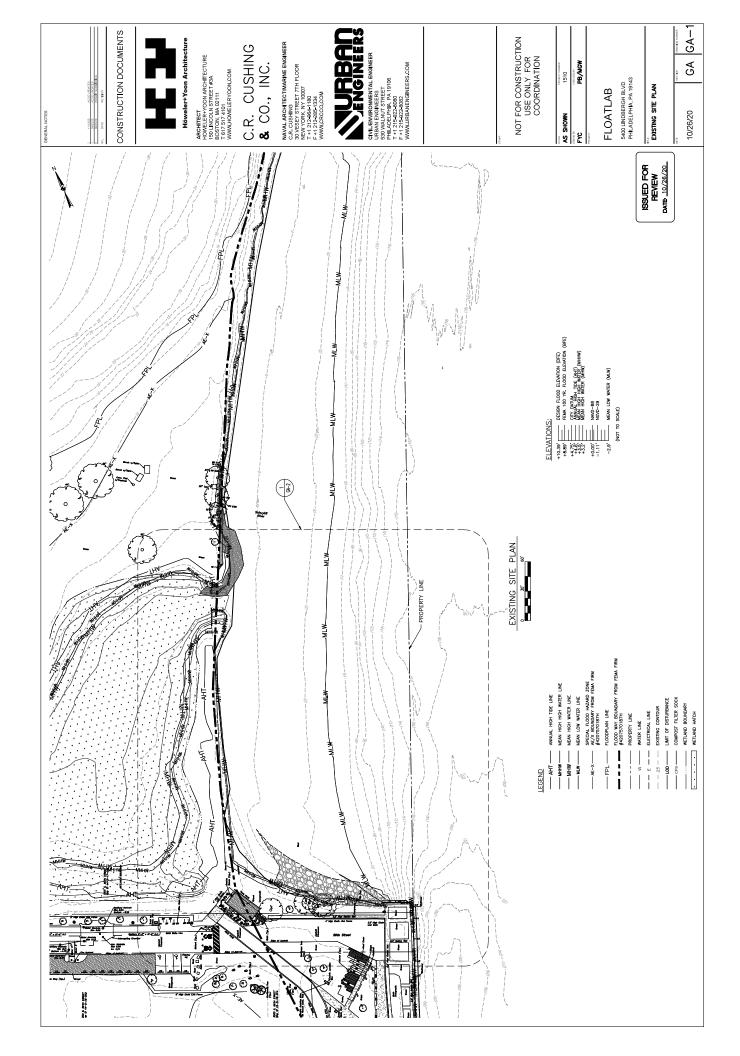
FLOATLAB

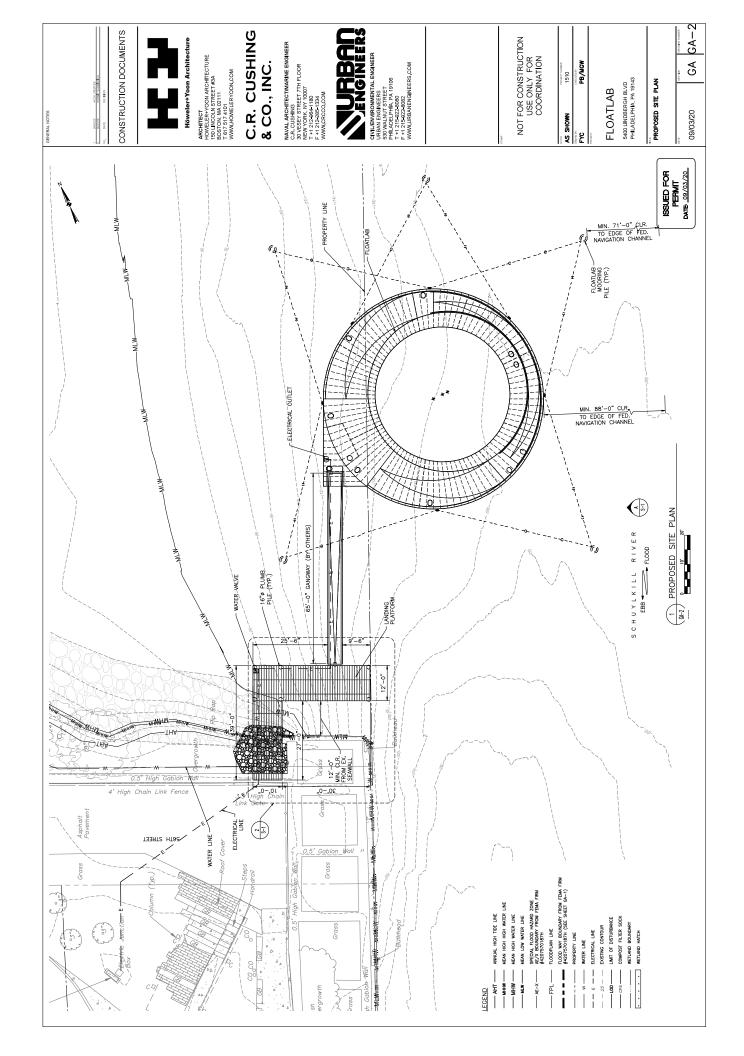
GENERAL NOTES 2

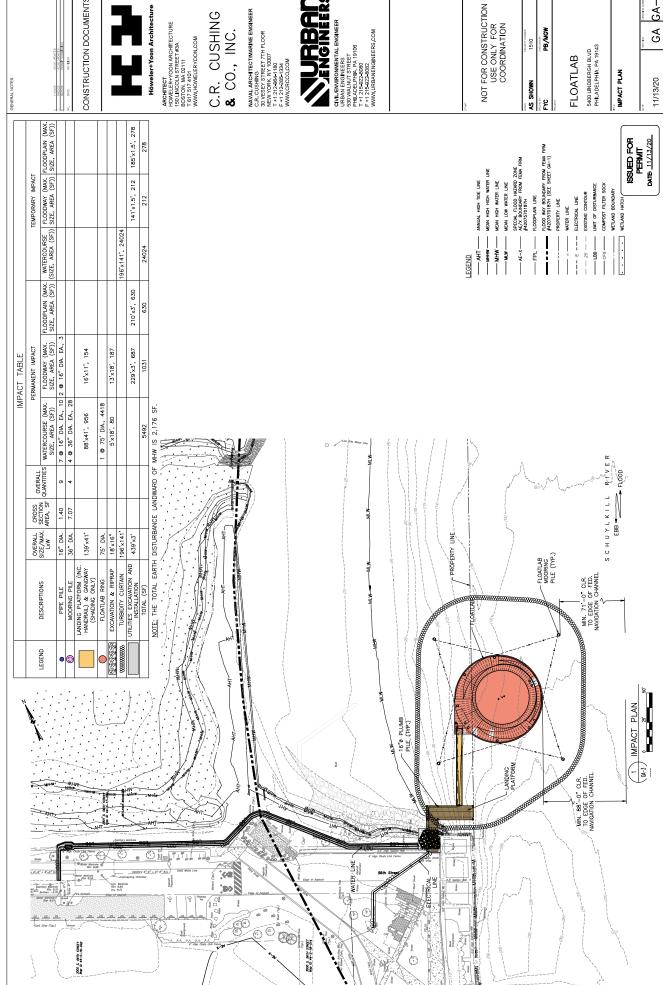
STANDARD CONSTRUCTION DETAIL #4-7 STANDARD SILT FENCE (18" HIGH)

GN-2S S

09/03/20







CONSTRUCTION DOCUMENTS

Höweler+Yoon Architectu

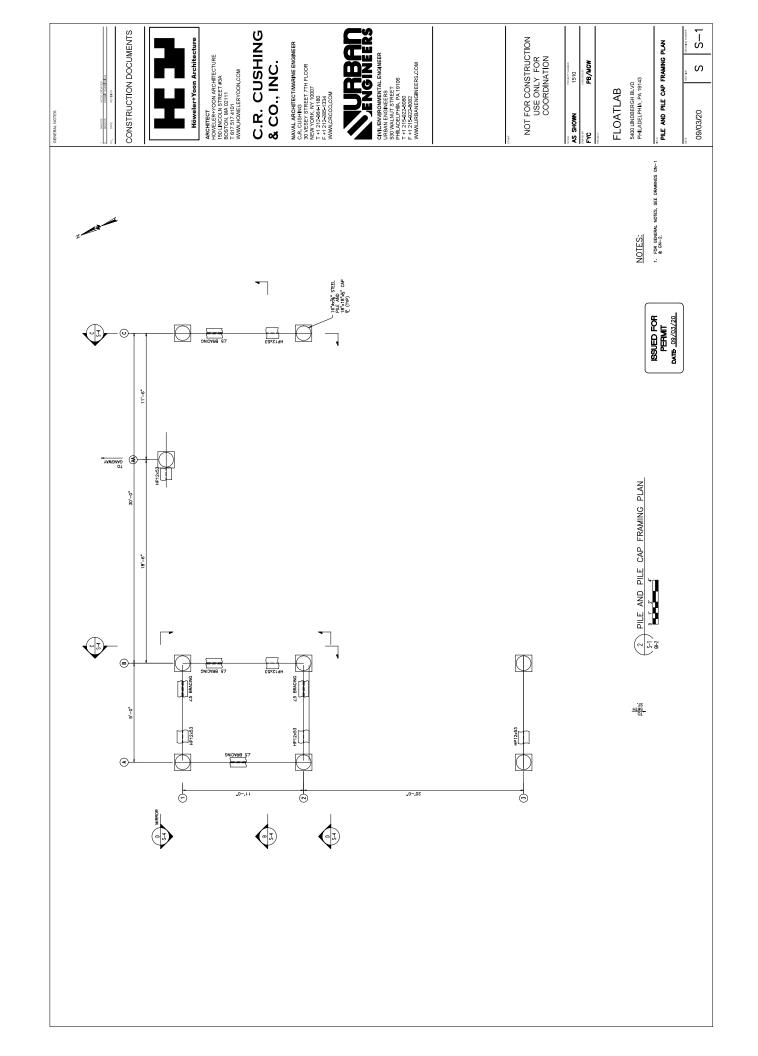
C.R. CUSHING & CO., INC.

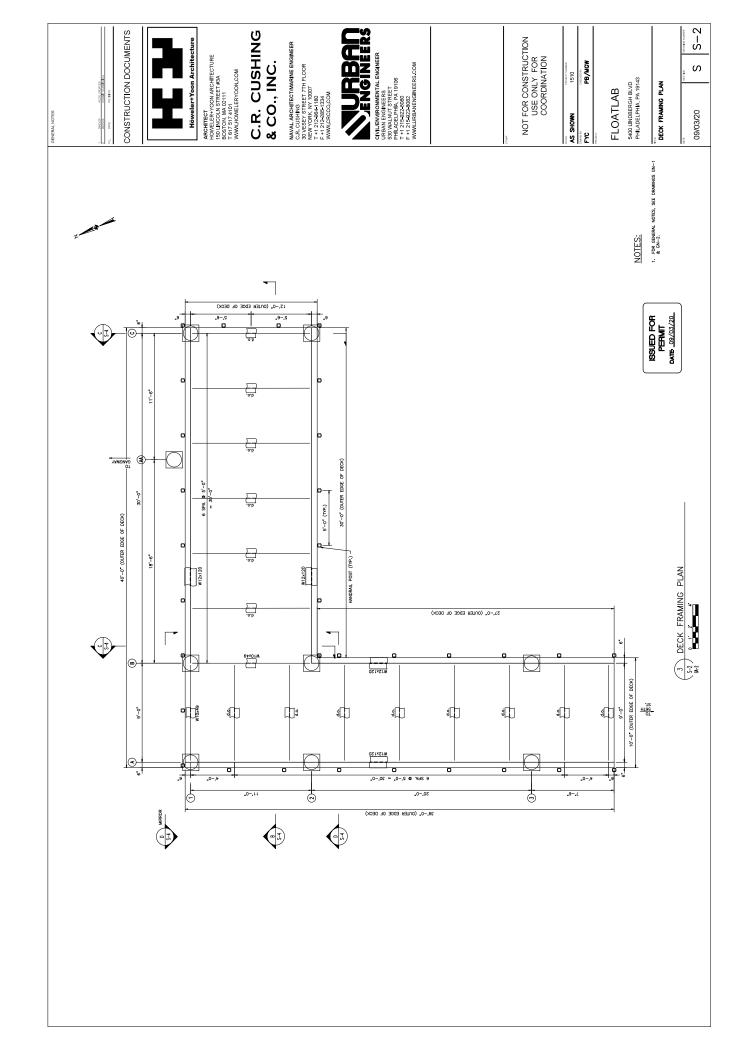
530 WALNUT STREET PHILADELPHM, PA 19106 T + 1 215-922-8080 F + 1 215-922-8080 WWW, URBANENGINEERS, COM

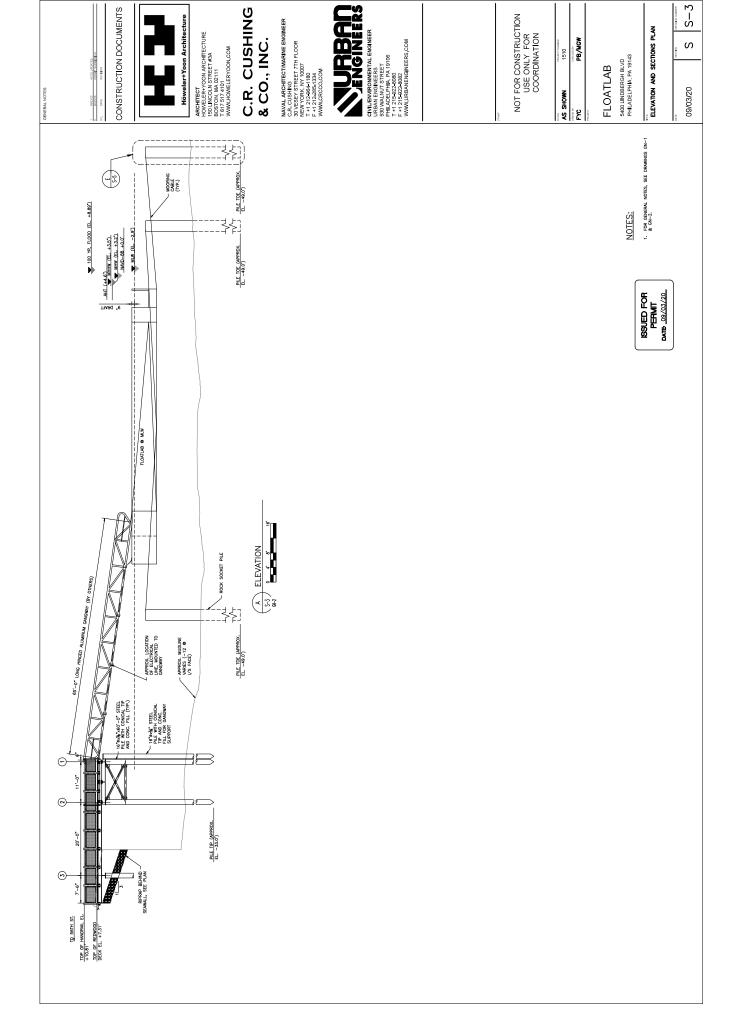
NOT FOR CONSTRUCTION USE ONLY FOR COORDINATION

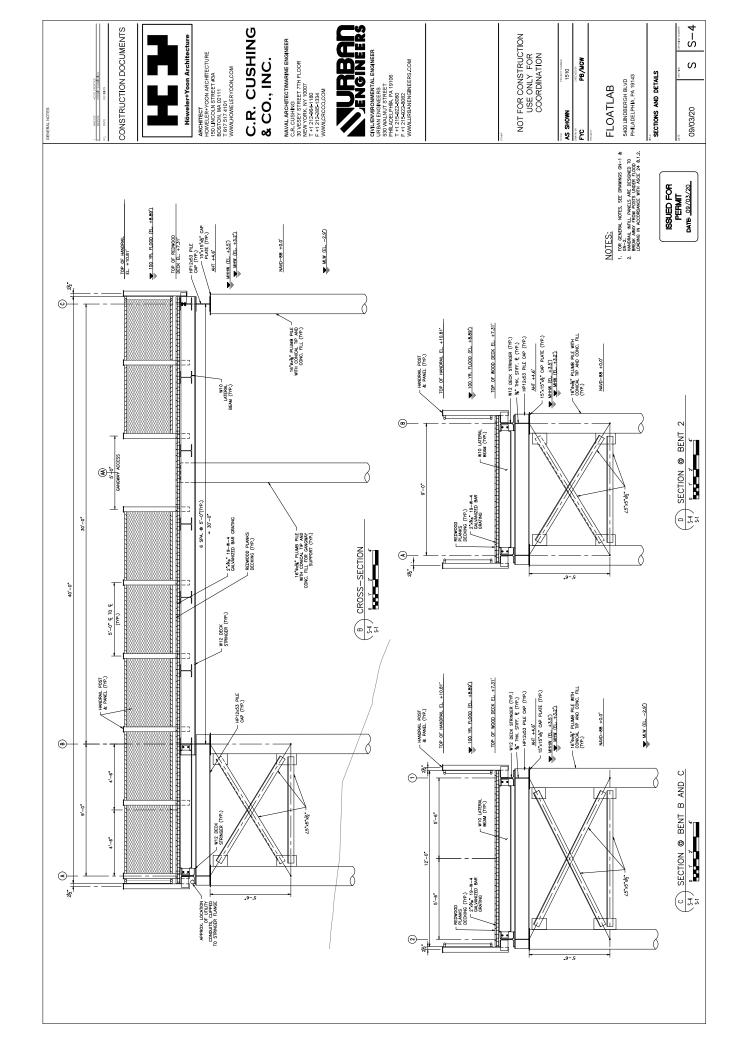
PB/MGW 1510

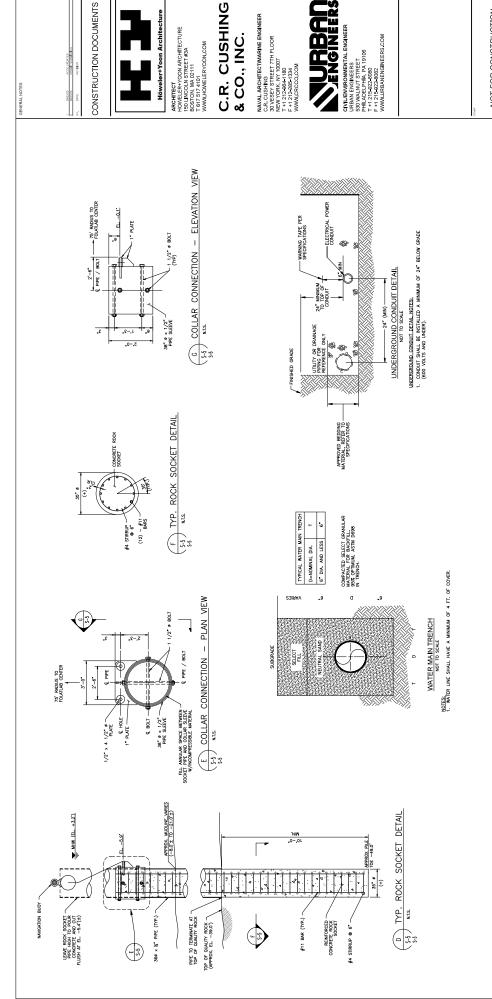
GA-3 ВĄ











1. FOR GENERAL NOTES, SEE DRAWINGS GN-1 & GN-2.

2. THE CONTRACTOR MAY POUR A 1 FT CONCRETE PLUG IN THE BOTTOM OF THE MOXY SOCIATION FOR EASY FOR CASH WITHOUT BOTTOM THE BOTTOM SOCIATION OF THE BOTTOM SOCIATION OF THE BOTTOM SOCIATION OF THE BOTTOM SOCIATION OF THE BOT

ISSUED FOR PERMIT DATE 09/03/20

3. INSTALL COLLAR SLEDYE AND BOLTS BEFORE DOUBNES, CONCETE FOR THE ROOK SOCKET. THE CONTINUED THE COLOR SOCKET PIPE IN THE DRY, SO LONG AS THE PROPER FINISHED ELEVATIONS ARE ATTAINED.

NOT FOR CONSTRUCTION

84	AS SHOWN	10	
ROUECTALIMBER	1510	ABDSOSK	

FLOATLAB

5400 LINDBERGH BLVD PHILADELPHIA, PA 19143

SECTIONS AND DETAILS

S

09/03/20

S-5