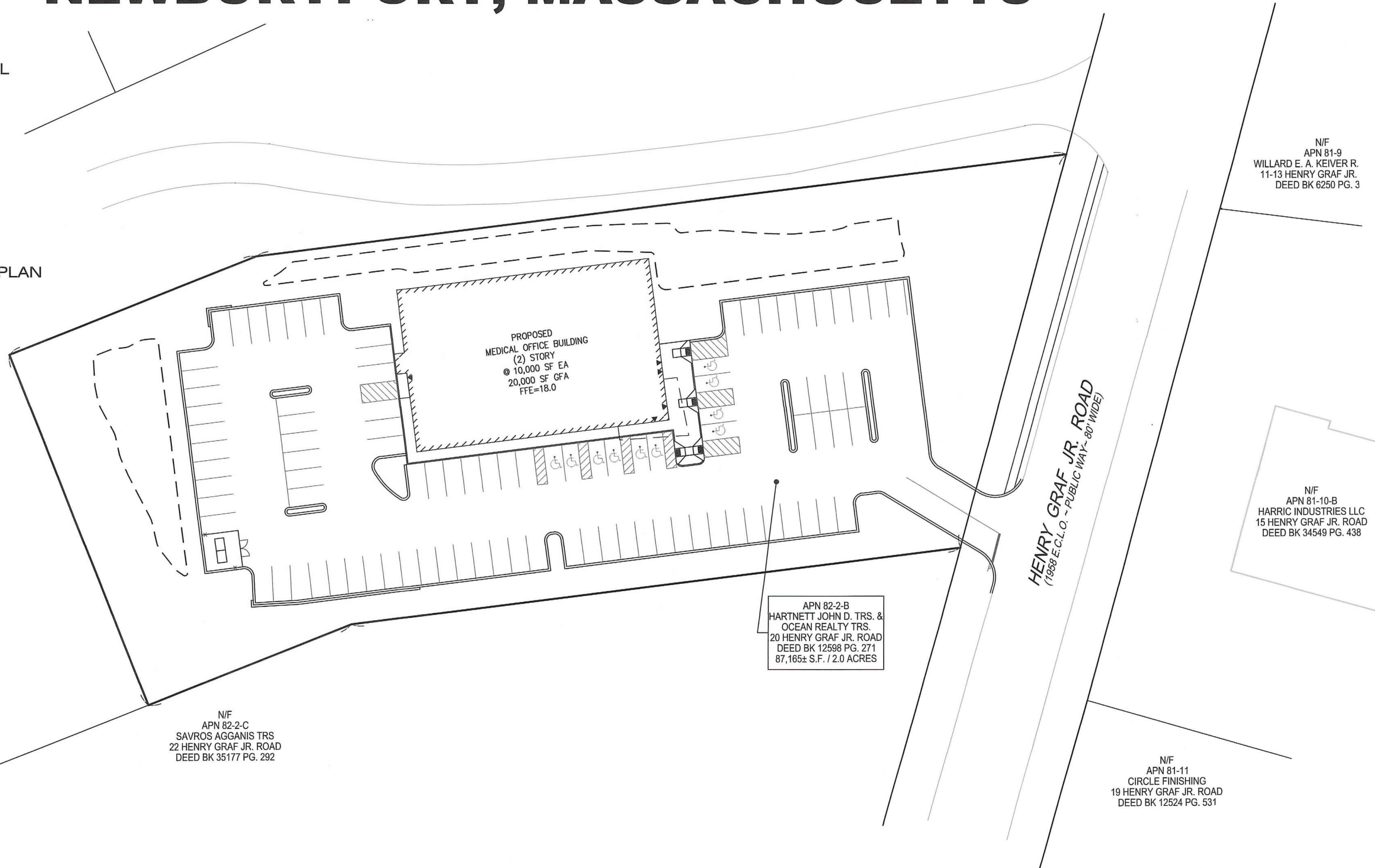


LOCUS MAP
Not to Scale

Drawing Index:

| No. | Drawing Title |
|-----------|---------------------------------------|
| CS-1 | COVER SHEET |
| L-1 | LEGEND, ABBREVIATIONS & GENERAL NOTES |
| EX-1 | EXISTING CONDITIONS PLAN |
| C-1 | SITE LAYOUT PLAN |
| C-2 | GRADING AND DRAINAGE PLAN |
| C-3 | UTILITY PLAN |
| ESC-1 | EROSION AND SEDIMENT CONTROL PLAN |
| LA-1 | LANDSCAPING PLAN |
| D-1 - D-5 | CONSTRUCTION DETAILS |

SITE DEVELOPMENT PLANS PROPOSED MEDICAL BUILDING 20 HENRY GRAF JR. ROAD IN NEWBURYPORT, MASSACHUSETTS



N/F
APN 82-2-1/32
AIRPARK INDUSTRIAL CONDOMINIUM TRS.
18 HENRY GRAF JR. ROAD
DEED BK. 18489 PG. 142

N/F
APN 82-2-C
SAVROS AGGANIS TRS
22 HENRY GRAF JR. ROAD
DEED BK 35177 PG. 292

APN 82-2-B
HARTNETT JOHN D. TRS. &
OCEAN REALTY TRS.
20 HENRY GRAF JR. ROAD
DEED BK 12598 PG. 271
87,165± S.F. / 2.0 ACRES

HENRY GRAF JR. ROAD
(1888 E.C.L.O. - PUBLIC WAY - 80' WIDE)

N/F
APN 81-9
WILLARD E. A. KEIVER R.
11-13 HENRY GRAF JR.
DEED BK 6250 PG. 3

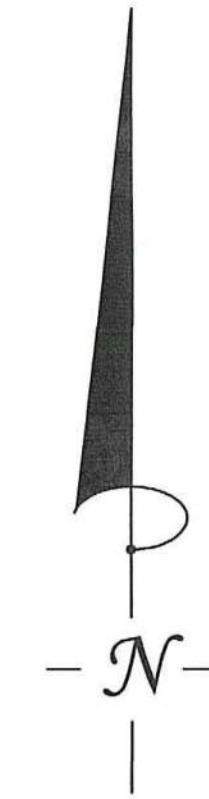
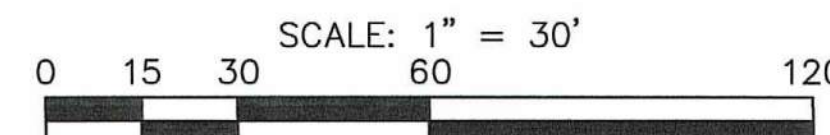
N/F
APN 81-10-B
HARRIC INDUSTRIES LLC
15 HENRY GRAF JR. ROAD
DEED BK 34549 PG. 438

N/F
APN 81-11
CIRCLE FINISHING
19 HENRY GRAF JR. ROAD
DEED BK 12524 PG. 531

Owner:
JOHN D. HARTNETT, TRS.
OCEAN REALTY TRS.
8 GRAF ROAD
NEWBURYPORT, MASSACHUSETTS 01950

Applicant:
SPORTS MEDICINE NORTH ORTHOPEDIC SURGERY, INC.
C/O CONSERV GROUP, INC.
110 STATE ROAD
SAGAMORE BEACH, MASSACHUSETTS 02562

Engineer/Surveyor:
MCKENZIE ENGINEERING GROUP, INC.
150 LONGWATER DRIVE
SUITE 101
NORWELL, MASSACHUSETTS 02061



| REV | DATE | DESCRIPTION | BY | APP |
|-----|------|-------------|----|-----|
| | | | | |
| | | | | |
| | | | | |
| | | | | |



**SITE DEVELOPMENT PLAN
PROPOSED MEDICAL BUILDING
20 HENRY GRAF JR. ROAD
NEWBURYPORT, MASSACHUSETTS**

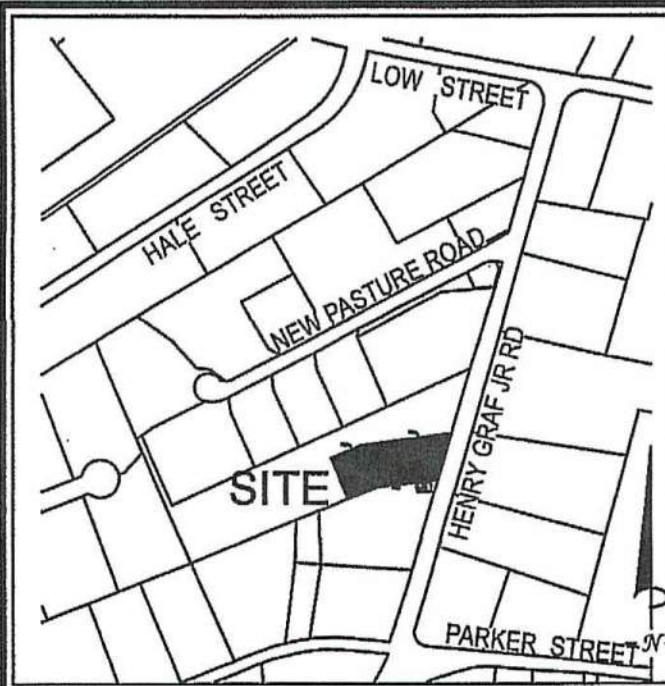
PROFESSIONAL ENGINEER:
 BRADLEY C. MCKENZIE
No. 30917

APPLICANT:
SPORTS MEDICINE NORTH
ORTHOPEDIC SURGERY, INC.
C/O CONSERV GROUP, INC.
110 STATE ROAD
SAGAMORE BEACH, MASSACHUSETTS 02562

DRAWN BY: ESS
DESIGNED BY: ESS
CHECKED BY: BCM
APPROVED BY: BCM
DATE: MARCH 17, 2020
SCALE: 1" = 30'
PROJECT NO.: 219-180
DWG. TITLE:

COVER SHEET

DWG. NO:
CS-1



LOCUS MAP
Not to Scale

ABBREVIATIONS

| | |
|-----------|------------------------------|
| FFE | FIRST FLOOR ELEVATION |
| BIT CONC. | BITUMINOUS CONCRETE PAVEMENT |
| CCB | CARE GOD BERM |
| EP | EDGE OF PAVEMENT |
| BC | BITUMINOUS CONCRETE CURB |
| (AM) | AS MEASURED |
| CALC | CALCULATED |
| RET WALL | RETAINING WALL |
| CONC. | CONCRETE |
| RCP | REINFORCED CONCRETE PIPE |
| VCC | VERTICAL GRANITE CURB |
| VCC | VERTICAL CONCRETE CURB |

LEGEND

SURVEY SYMBOLS

| | |
|-------|--------------------------------|
| • | REBAR |
| CB/DH | CONCRETE BOUND WITH DRILL HOLE |
| SB | STONE BOUND |
| SB/DH | STONE BOUND |

UTILITY SYMBOLS

| | |
|-----|----------------------|
| ⊗ | ELECTRIC HAND HOLE |
| ⊗ | GUY POLE |
| —GW | GUY WIRE |
| ⊗ | HVAC UNIT |
| ⊗ | TRANSFORMER |
| ⊗ | WATER GATE |
| ⊗ | ELECTRIC MANHOLE |
| ⊗ | SEWER MANHOLE |
| ⊗ | DRAIN MANHOLE |
| ⊗ | TELEPHONE MANHOLE |
| ⊗ | DRAINAGE CATCH BASIN |
| ⊗ | HYDRANT |
| ⊗ | POST INDICATOR VALVE |
| ⊗ | UTILITY POLE |
| ⊗ | YARD LIGHT |
| ⊗ | RIP RAP |
| ⊗ | BOLLARD |
| ⊗ | SIGN |

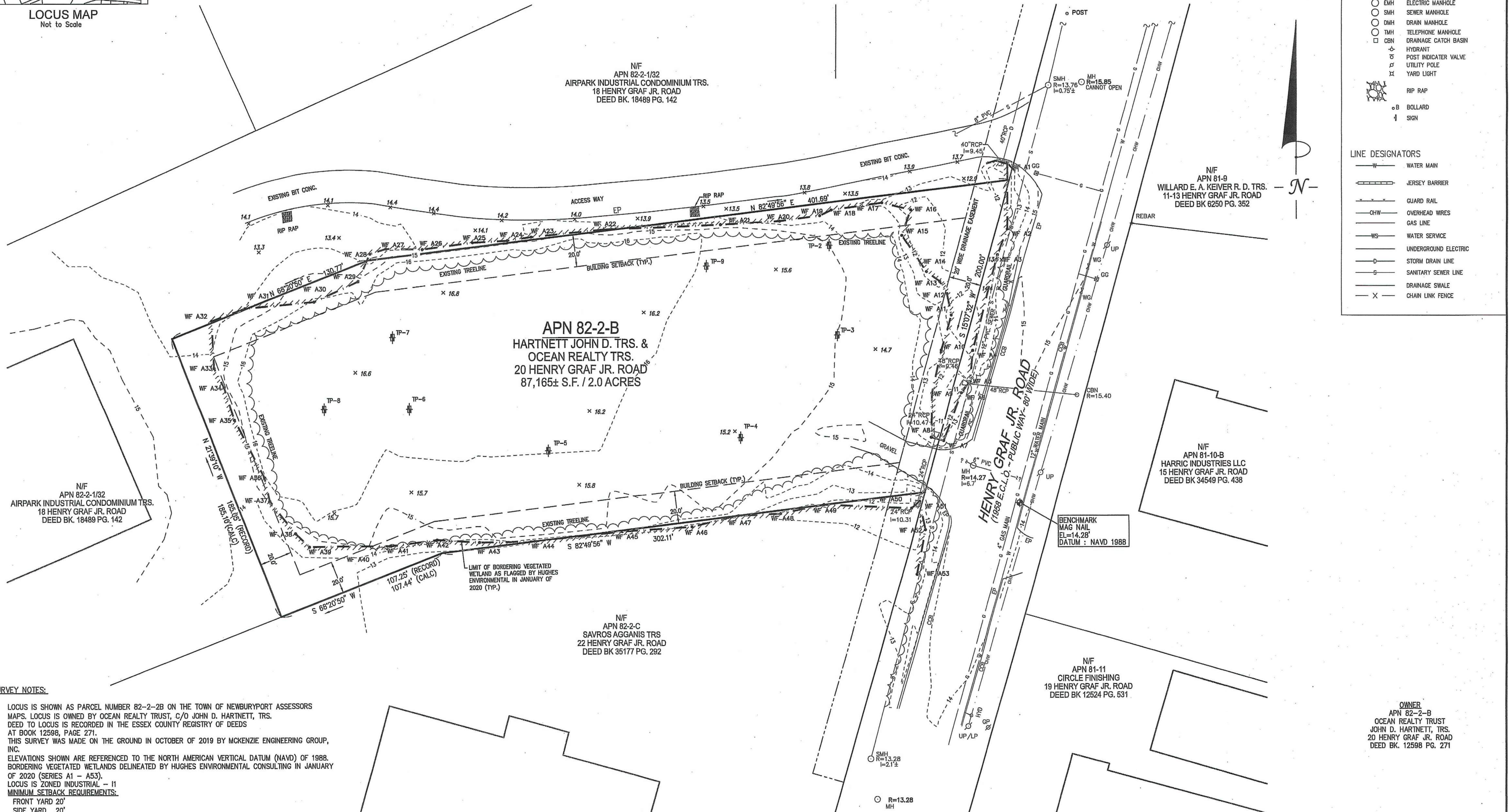
LINE DESIGNATORS

| | |
|------|----------------------|
| —W | WATER MAIN |
| — | JERSEY BARRIER |
| — | GUARD RAIL |
| —OHW | OVERHEAD WIRES |
| — | GAS LINE |
| —WS | WATER SERVICE |
| — | UNDERGROUND ELECTRIC |
| —D | STORM DRAIN LINE |
| —S | SANITARY SEWER LINE |
| — | DRAINAGE SWALE |
| —X | CHAIN LINK FENCE |

MEG
MCKENZIE ENGINEERING GROUP

Assinippi Office Park
150 Longwater Drive, Suite 101
Norwell, MA 02061
P: 781.792.3900
F: 781.792.0333
www.mckeng.com

20 HENRY GRAF JR. ROAD
NEWBURYPORT, MASSACHUSETTS



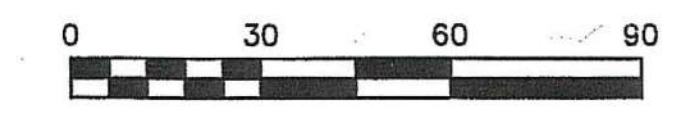
- SURVEY NOTES:**
- LOCUS IS SHOWN AS PARCEL NUMBER 82-2-2B ON THE TOWN OF NEWBURYPORT ASSESSORS MAPS. LOCUS IS OWNED BY OCEAN REALTY TRUST, C/O JOHN D. HARTNETT, TRS.
 - DEED TO LOCUS IS RECORDED IN THE ESSEX COUNTY REGISTRY OF DEEDS AT BOOK 12598, PAGE 271.
 - THIS SURVEY WAS MADE ON THE GROUND IN OCTOBER OF 2019 BY MCKENZIE ENGINEERING GROUP, INC.
 - ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988. BORDERING VEGETATED WETLANDS DELINEATED BY HUGHES ENVIRONMENTAL CONSULTING IN JANUARY OF 2020 (SERIES A1 - A53).
 - LOCUS IS ZONED INDUSTRIAL - I1
 - MINIMUM SETBACK REQUIREMENTS:
FRONT YARD 20'
SIDE YARD 20'
REAR YARD 20'
 - LOCUS IS SITUATED IN ZONE X AS SHOWN ON F.I.R.M. No 25009C0117G, EFFECTIVE 7/16/2014.
 - LOCUS IS NOT LOCATED IN A DEP ZONE 2 AND TOWN OF NEWBURYPORT AQUIFER PROTECTION DISTRICT ZONE.
 - UTILITY INFORMATION FROM ABOVE GROUND OBSERVED EVIDENCE IN CONJUNCTION WITH DIG SAFE MARKINGS AND RECORD PLANS. THE LAND SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE LAND SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. BEFORE CONSTRUCTION CALL DIG SAFE SYSTEMS, INC. AT 1-888-344-7233.
 - PLAN REFERENCES:
PB 451 PG 5

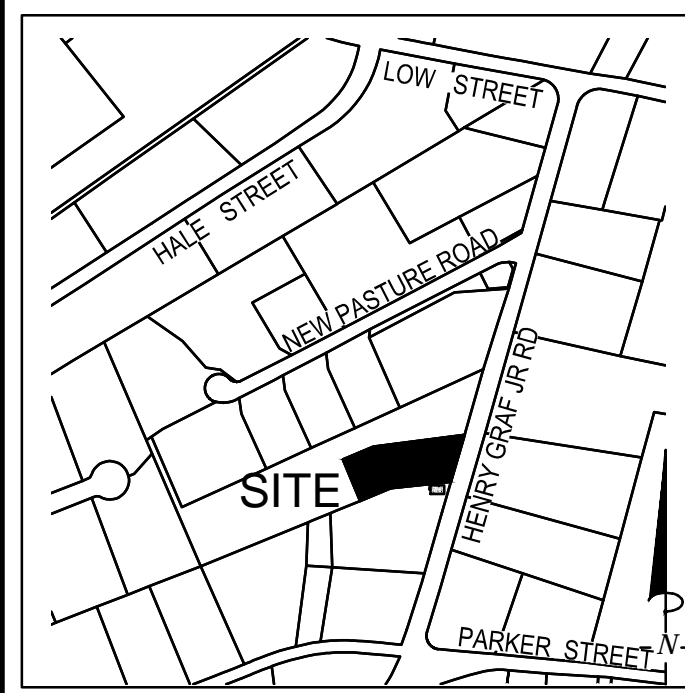
PROFESSIONAL SURVEYOR:
RICHARD MCKENZIE
REGISTERED PROFESSIONAL LAND SURVEYOR

APPLICANT:
SPORTS MEDICINE NORTH ORTHOPEDIC SURGERY, INC.
110 STATE ROAD
SAGAMORE BEACH, MASSACHUSETTS

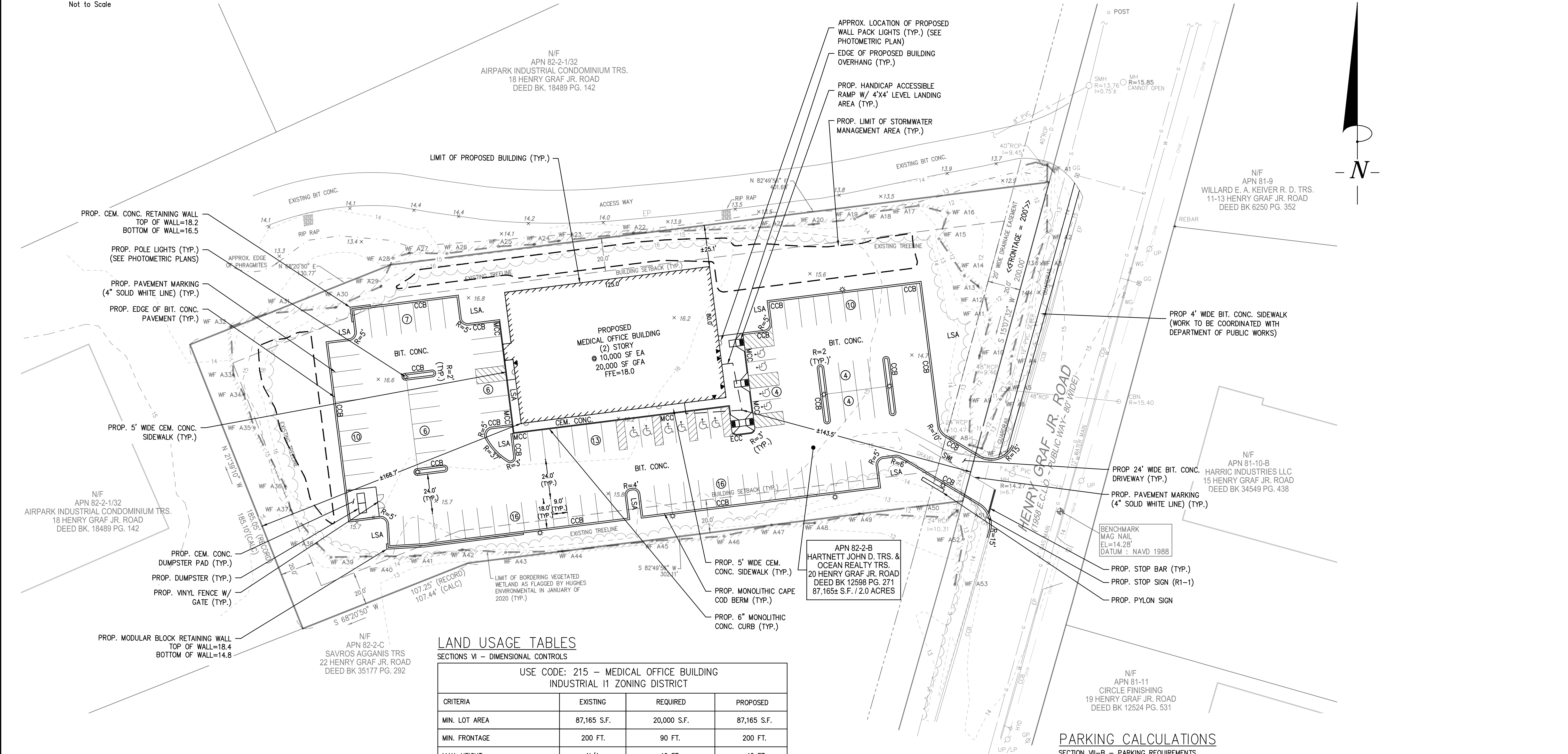
NOT FOR CONSTRUCTION

DRAWN BY: ESS
CHECKED BY: RTLS
APPROVED BY: RJH
DATE: MARCH 17, 2020
SCALE: 1"=30'
PROJECT NO.: 219-180
DWG. TITLE: EXISTING CONDITIONS PLAN
DWG. NO.: EX-1





LOCUS MAP
Not to Scale

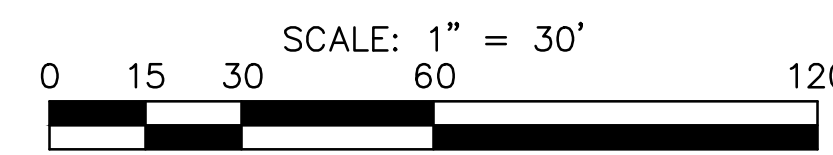


LAND USAGE TABLES

SECTIONS VI - DIMENSIONAL CONTROLS

| USE CODE: 215 - MEDICAL OFFICE BUILDING INDUSTRIAL I1 ZONING DISTRICT | | | |
|--|-------------|-------------|-------------|
| CRITERIA | EXISTING | REQUIRED | PROPOSED |
| MIN. LOT AREA | 87,165 S.F. | 20,000 S.F. | 87,165 S.F. |
| MIN. FRONTAGE | 200 FT. | 90 FT. | 200 FT. |
| MAX. HEIGHT | N/A | 40 FT. | <40 FT. |
| MAX. % LOT COVERAGE | N/A | 50% | 12.0% |
| OPEN SPACE | N/A | N/A | N/A |
| MIN. FRONT YARD | N/A | 20 FT. | ±143.5 FT. |
| MIN. SIDE YARD | N/A | 20 FT. | ±25.1 FT. |
| MIN. REAR YARD | N/A | 20 FT. | ±168.7 FT. |

NOTES:
1. SECTION XV-Hd.1. - A LANDSCAPED BUFFER STRIP AT LEAST 20' IN WIDTH SHALL BE ESTABLISHED ADJACENT TO ANY PUBLIC ROAD.
2. SECTION XV-Hd.4. - AT LEAST 5% OF THE INTERIOR OF THE PARKING AREA SHALL BE MAINTAINED WITH LANDSCAPING, INCLUDING TREES, IN LANDSCAPE ISLANDS OR PLOTS OF AT LEAST NINE FEET IN WIDTH WITH NO MORE THAN 20 PARKING SPACES BETWEEN EACH ISLAND OR PLOT. (5.1% PROVIDED BY THIS SUBMISSION)



PARKING CALCULATIONS

SECTION VII-B - PARKING REQUIREMENTS

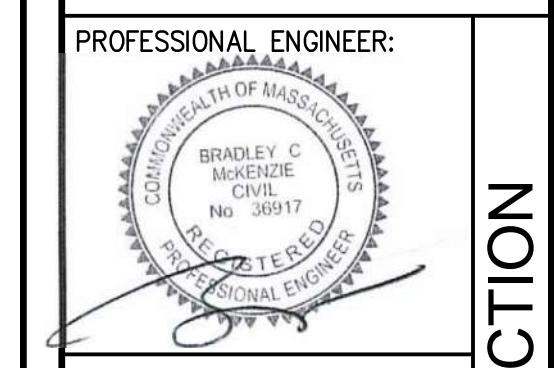
| CRITERIA | REQUIRED (NEWBURYPORT ZONING ORDINANCE) | REQUIRED | PROPOSED |
|---------------------------------------|---|-----------|-----------|
| USE CODE 215: MEDICAL OFFICE BUILDING | 1 SPACE/2 EMPLOYEES = 40 EMPLOYEES/2 EMPLOYEES PER SPACE = 20 SPACES 1 SPACE/300 SF GFA = 20,000 SF. GFA/300 SF GFA PER SPACE = 67 SPACES 20 + 67 = 87 SPACES | 87 SPACES | 96 SPACES |

PARKING NOTES:
1. SPECIALIZED MEDICAL FACILITIES: OUTPATIENT UNITS AND FACILITIES: 10% OF THE TOTAL NUMBER OF PARKING SPACES PROVIDED TO SERVE EACH SUCH OUTPATIENT UNIT OR FACILITY SHALL BE ACCESSIBLE (521 CMR: ARCHITECTURAL ACCESS BOARD).
2. 96 TOTAL SPACES INCLUDES 10 AAB ACCESSIBLE 9' X 18' WITH 4 - 8' X 18' ACCESS AREA (VAN ACCESSIBLE SPACE) (521 CMR: ARCHITECTURAL ACCESS BOARD) ACCESSIBLE SPACES REQUIRED = 10 (10% OF 96 TOTAL SPACES)

| REV | DATE | DESCRIPTION | BY | APP |
|-----|------|-------------|----|-----|
| | | | | |



**SITE DEVELOPMENT PLAN
PROPOSED MEDICAL BUILDING
20 HENRY GRAF JR. ROAD
NEWBURYPORT, MASSACHUSETTS**



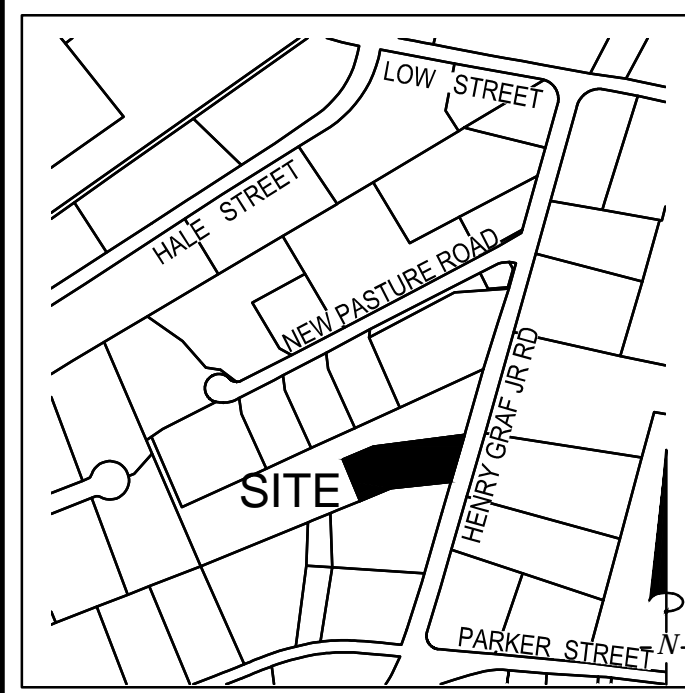
APPLICANT:
**SPORTS MEDICINE NORTH
ORTHOPEDIC SURGERY, INC.
C/O CONSERV GROUP, INC.**
110 STATE ROAD
SAGAMORE BEACH, MASSACHUSETTS 02562

DESIGNED BY: ESS
CHECKED BY: BCM
APPROVED BY: BCM
DATE: MARCH 17, 2020
SCALE: 1" = 30'
PROJECT NO.: 219-180
DWG. TITLE:

**SITE LAYOUT
PLAN**

DWG. NO.: **C-1**

NOT FOR CONSTRUCTION



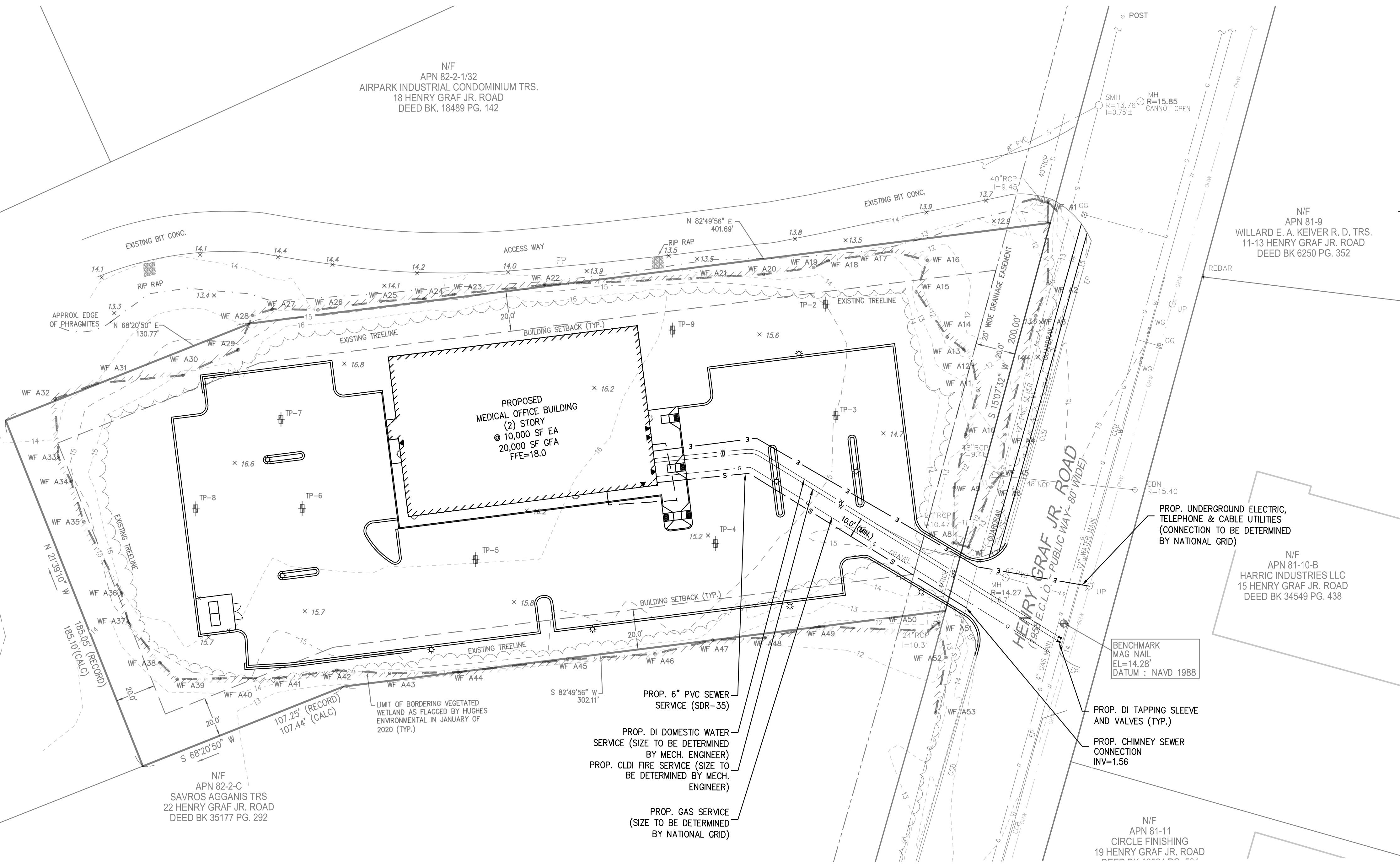
LOCUS MAP
Not to Scale

N/F
APN 82-2-1/32
AIRPARK INDUSTRIAL CONDOMINIUM TRS.
18 HENRY GRAF JR. ROAD
DEED BK. 18489 PG. 142

N/F
APN 81-9
WILLARD E. A. KEIVER R. D. TRS.
11-13 HENRY GRAF JR. ROAD
DEED BK 6250 PG. 352

N/F
APN 81-10-B
HARRIC INDUSTRIES LLC
15 HENRY GRAF JR. ROAD
DEED BK 34549 PG. 438

N/F
APN 81-11
CIRCLE FINISHING
19 HENRY GRAF JR. ROAD



N/F
APN 82-2-1/32
AIRPARK INDUSTRIAL CONDOMINIUM TRS.
18 HENRY GRAF JR. ROAD
DEED BK. 18489 PG. 142

N/F
APN 82-2-C
SAVROS AGGANIS TRS
22 HENRY GRAF JR. ROAD
DEED BK 35177 PG. 292

LIMIT OF BORDERING VEGETATED
WETLAND AS FLAGGED BY HUGHES
ENVIRONMENTAL IN JANUARY OF
2020 (TYP.)

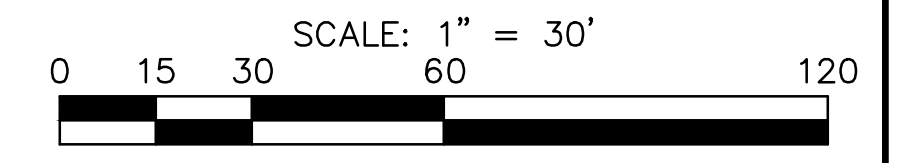
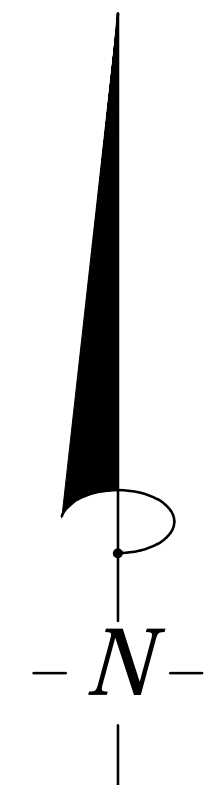
- PROP. 6" PVC SEWER SERVICE (SDR-35)
- PROP. DI DOMESTIC WATER SERVICE (SIZE TO BE DETERMINED BY MECH. ENGINEER)
- PROP. CLDI FIRE SERVICE (SIZE TO BE DETERMINED BY MECH. ENGINEER)
- PROP. GAS SERVICE (SIZE TO BE DETERMINED BY NATIONAL GRID)

PROP. UNDERGROUND ELECTRIC, TELEPHONE & CABLE UTILITIES (CONNECTION TO BE DETERMINED BY NATIONAL GRID)

BENCHMARK
MAG NAIL
EL=14.28'
DATUM : NAVD 1988

PROP. DI TAPPING SLEEVE AND VALVES (TYP.)

PROP. CHIMNEY SEWER CONNECTION
INV=1.56



| REV | DATE | DESCRIPTION | BY | APP |
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**SITE DEVELOPMENT PLAN
PROPOSED MEDICAL BUILDING
20 HENRY GRAF JR. ROAD
NEWBURYPORT, MASSACHUSETTS**



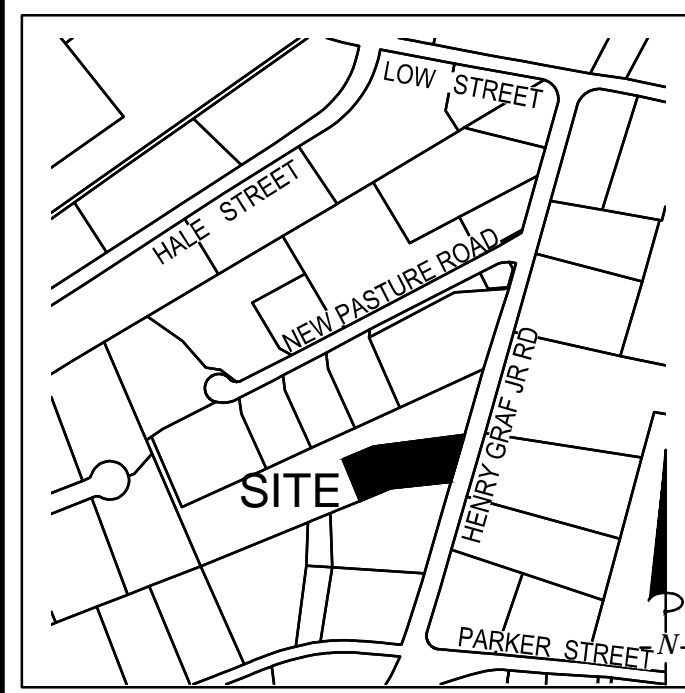
APPLICANT:
**SPORTS MEDICINE NORTH
ORTHOPEDIC SURGERY, INC.
C/O CONSERV GROUP, INC.**
110 STATE ROAD
SAGAMORE BEACH, MASSACHUSETTS 02562

DESIGNED BY: ESS
CHECKED BY: BCM
APPROVED BY: BCM
DATE: MARCH 17, 2020
SCALE: 1" = 30'
PROJECT NO.: 219-180
DWG. TITLE:

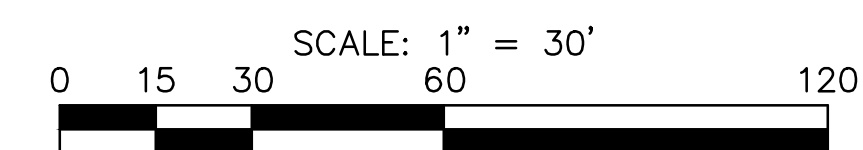
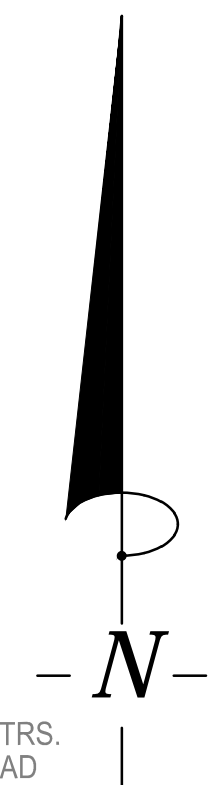
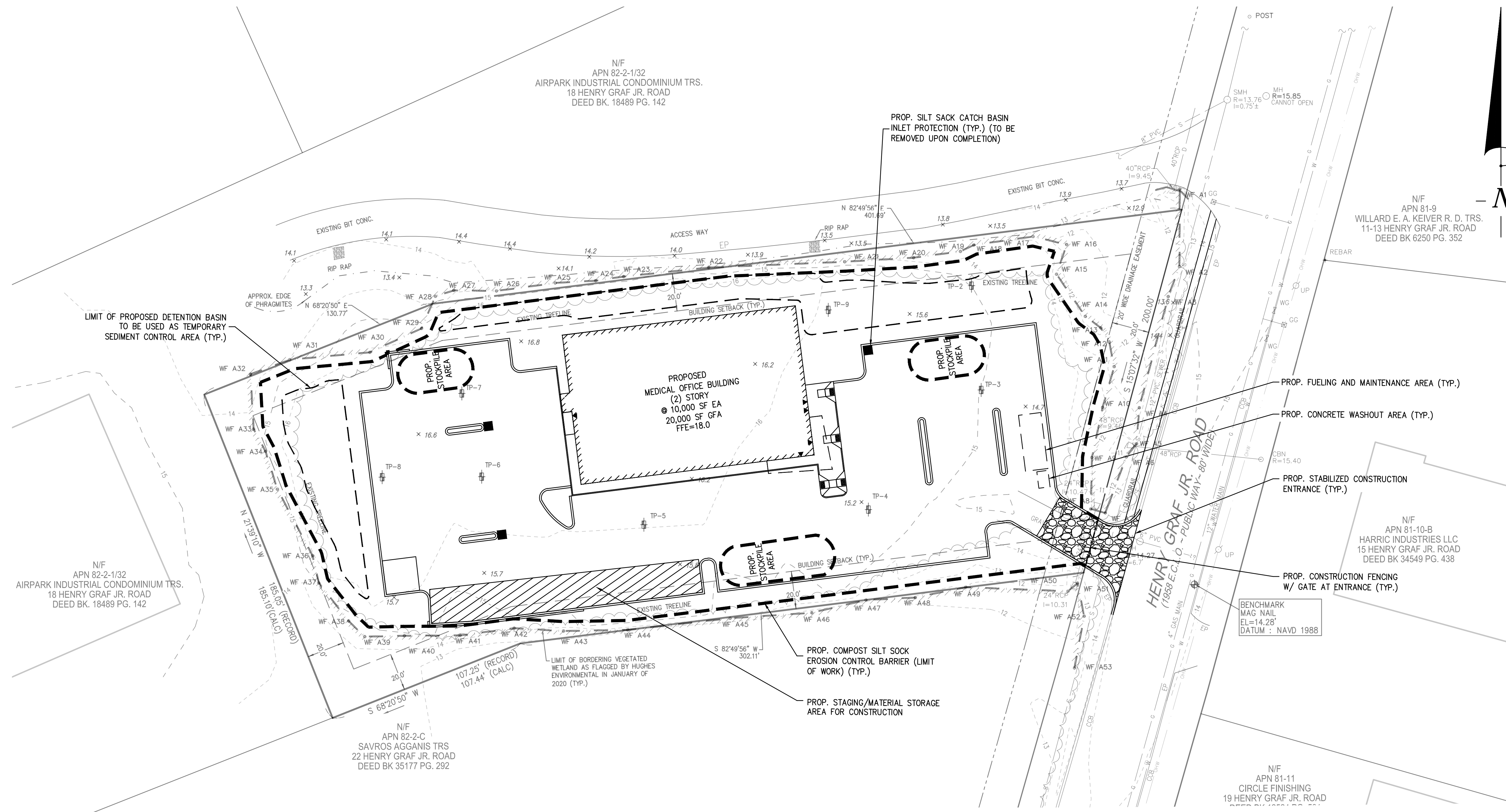
UTILITY PLAN

DWG. NO.:
C-3

NOT FOR CONSTRUCTION



LOCUS MAP
Not to Scale



| REV | DATE | DESCRIPTION | BY | APP |
|-----|------|-------------|----|-----|
| | | | | |
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| | | | | |
| | | | | |

MG
MCKENZIE
ENGINEERING GROUP

Assisippi Office Park
150 Longwater Drive, Suite 101
Norwell, MA 02061
P: 781.792.3900
F: 781.792.0333
www.mckeng.com

**SITE DEVELOPMENT PLAN
PROPOSED MEDICAL BUILDING
20 HENRY GRAF JR. ROAD
NEWBURYPORT, MASSACHUSETTS**

PROFESSIONAL ENGINEER:

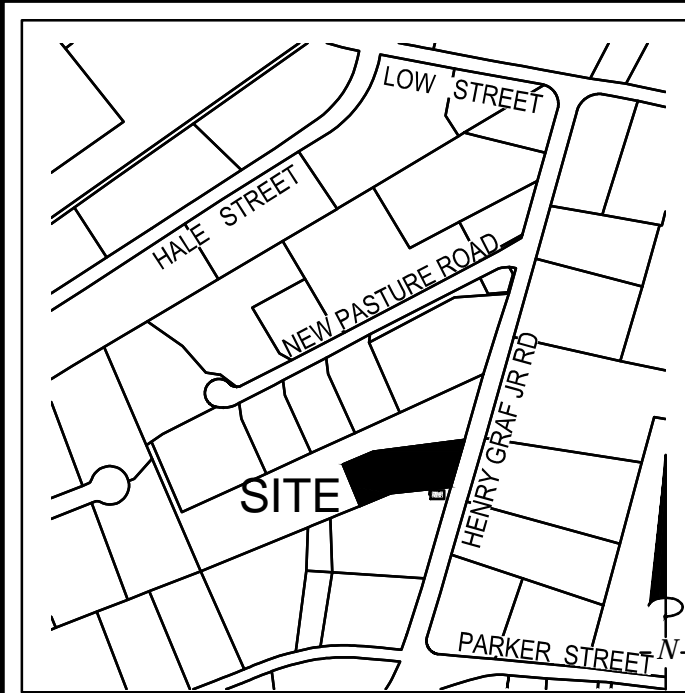
APPLICANT:
**SPORTS MEDICINE NORTH
ORTHOPEDIC SURGERY, INC.
C/O CONSERV GROUP, INC.**
110 STATE ROAD
SAGAMORE BEACH, MASSACHUSETTS 02562

DRAWN BY: ESS
DESIGNED BY: ESS
CHECKED BY: BCM
APPROVED BY: BCM
DATE: MARCH 17, 2020
SCALE: 1" = 30'
PROJECT NO.: 219-180
DWG. TITLE:

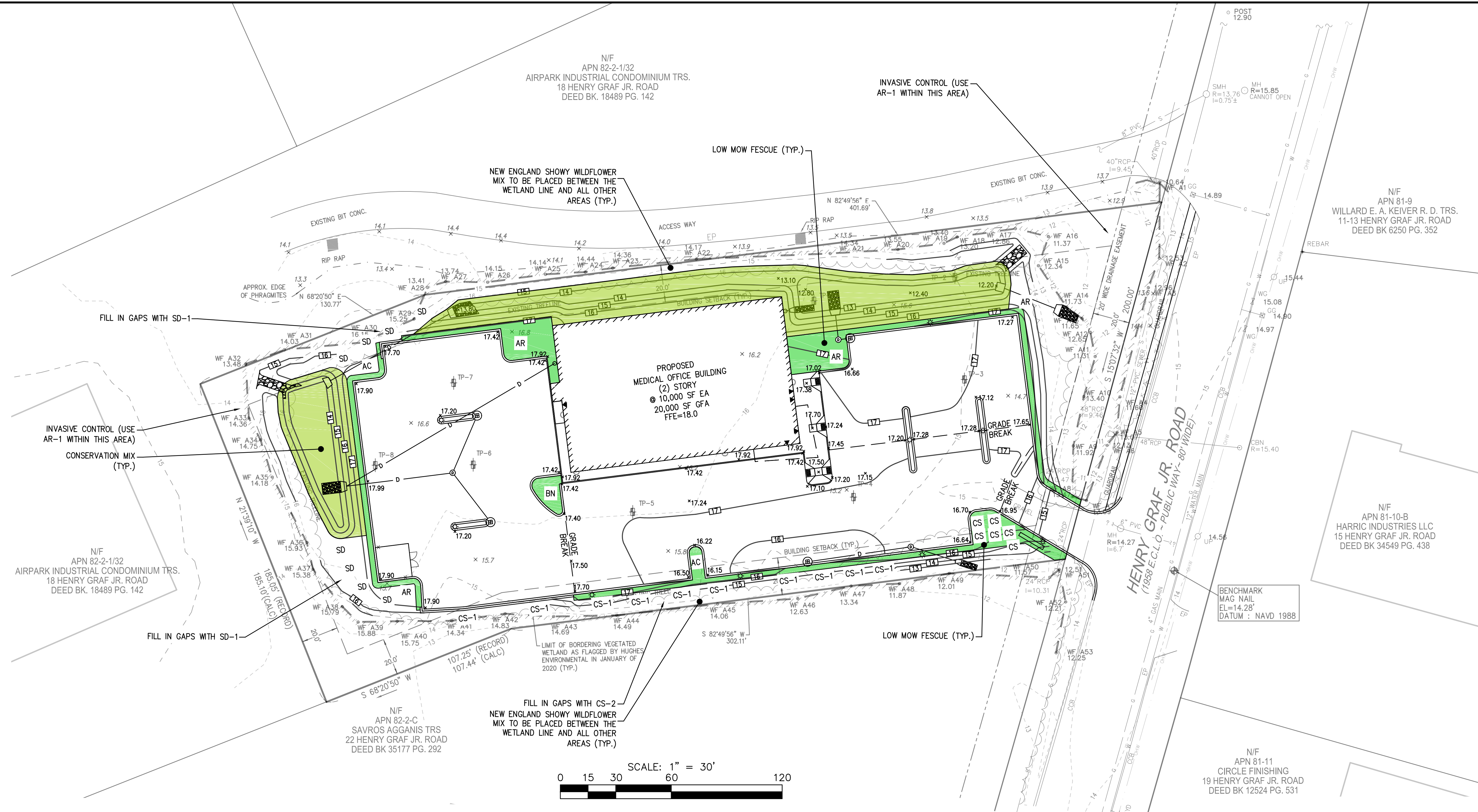
**EROSION AND
SEDIMENT
CONTROL PLAN**

DWG. NO.: **ESC-1**

NOT FOR CONSTRUCTION



LOCUS MAP
Not to Scale



| SYMBOL | QTY | BOTANICAL NAME | COMMON NAME | SIZE | REMARKS |
|---------------------------|-----|----------------------------------|-----------------------|-----------------|---|
| TREES | | | | | |
| AR | 4 | ACER RUBRUM | RED MAPLE | 3 - 3.5" CAL. | |
| AR-1 | 6 | ACER RUBRUM | RED MAPLE | 1 - 1.5" CAL. | IN INVASIVE CONTROL AREA |
| BN | 1 | BETULA NIGRA 'DURA HEAT' | DURA HEAT RIVER BIRCH | 10 - 12- HEIGHT | MULTI-STEM 3-5 STEM |
| SHRUBS/SMALL TREES | | | | | |
| SD | 8 | SALIX DISCOLOR | PUSSY WILLOW | 1 - 1.5" CAL. | |
| SD-1 | 30 | SALIX DISCOLOR | PUSSY WILLOW | TUBLINGS | FILL IN CAPS, AND IN INVASIVE CONTROL AREAS |
| AC | 2 | AMELANCHIER CANADENSIS | SERVICEBERRY | 2 - 2.5" CAL. | |
| CS | 6 | CORNUS SERICIA | REDOSIER DOGWOOD | 5 GAL | 4' TRIA. SPACING |
| CS-1 | 10 | CORNUS SERICIA | REDOSIER DOGWOOD | 3-4' | 6' ON CENTER, NEWP SOURCE AS SHOWN AND IN INVASIVE CONTROL AREA |
| CS-2 | 60 | CORNUS SERICIA | REDOSIER DOGWOOD | TUBLINGS | FILL IN GAPS, NEWP SOURCE |
| SEED MIX | | | | | |
| | | LOW MOW FESCUE | | | AREAS NEAR BUILDING FOR MANICURED LOOK AND AREAS FOR VEHICLE OVERHANG |
| | | NEW ENGLAND SHOWY WILDFLOWER MIX | | | SLOPES AND AREAS OUTSIDE BASINS |
| | | CONSERVATION MIX | | | BASINS/SWALES |

PLANTING TABLE

| | |
|--|------------------|
| | CONSERVATION MIX |
| | LOW MOW FESCUE |

| REV | DATE | DESCRIPTION | BY | APP |
|-----|------|-------------|----|-----|
| | | | | |



**SITE DEVELOPMENT PLAN
PROPOSED MEDICAL BUILDING
20 HENRY GRAF JR. ROAD
NEWBURYPORT, MASSACHUSETTS**

PROFESSIONAL ENGINEER:

APPLICANT:
**SPORTS MEDICINE NORTH
ORTHOPEDIC SURGERY, INC.
C/O CONSERV GROUP, INC.**
 110 STATE ROAD
 SAGAMORE BEACH, MASSACHUSETTS 02562

DRAWN BY: ESS
 DESIGNED BY: ESS
 CHECKED BY: BCM
 APPROVED BY: BCM
 DATE: MARCH 17, 2020
 SCALE: 1" = 30'
 PROJECT NO.: 219-180
 DWG. TITLE:

**LANDSCAPING
PLAN**

DWG. NO.: **LA-1**

NOT FOR CONSTRUCTION

- NOTES:
- ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 - PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 - JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
 - CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

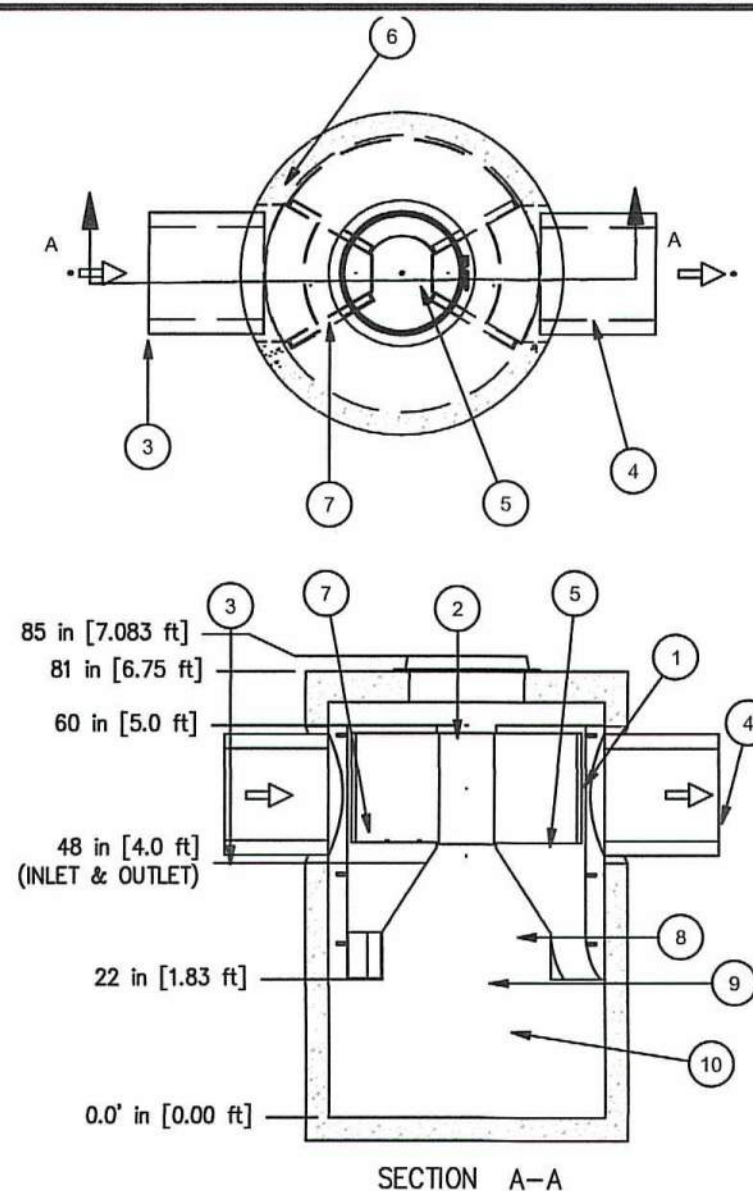
Hydro International
 Stormwater Solutions
 94 Hutchins Drive
 Portland, Maine 04102
 Tel: (207) 756-6200
 Fax: (207) 756-6212
 stormwaterinquiry@hydro-int.com

MANHOLE WALL AND SLAB THICKNESS ARE NOT TO SCALE.

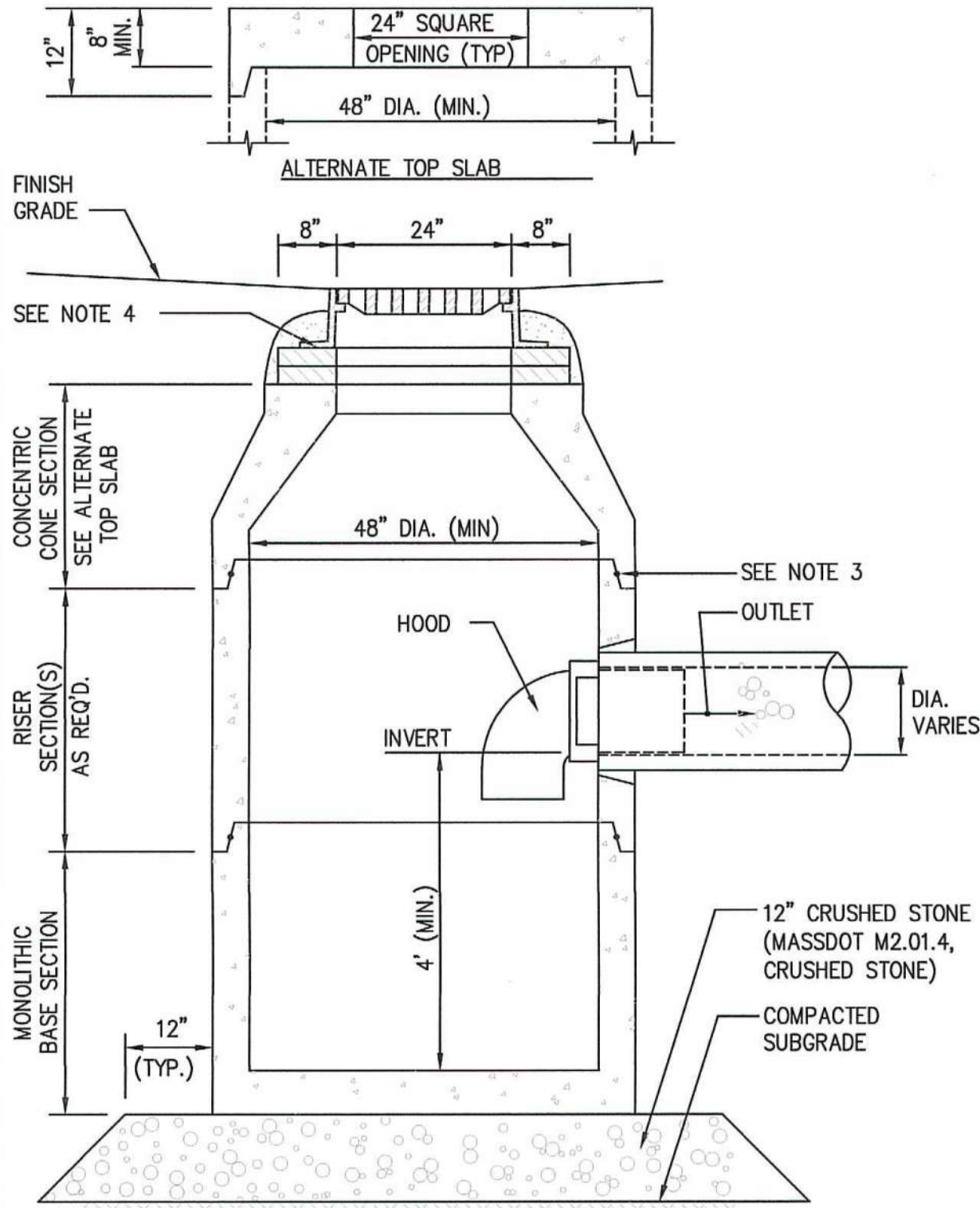
CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING FIRST DEFENSE MANHOLE.

CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIA. AND PIPE ORIENTATION PRIOR TO RELEASING UNIT TO FABRICATION.

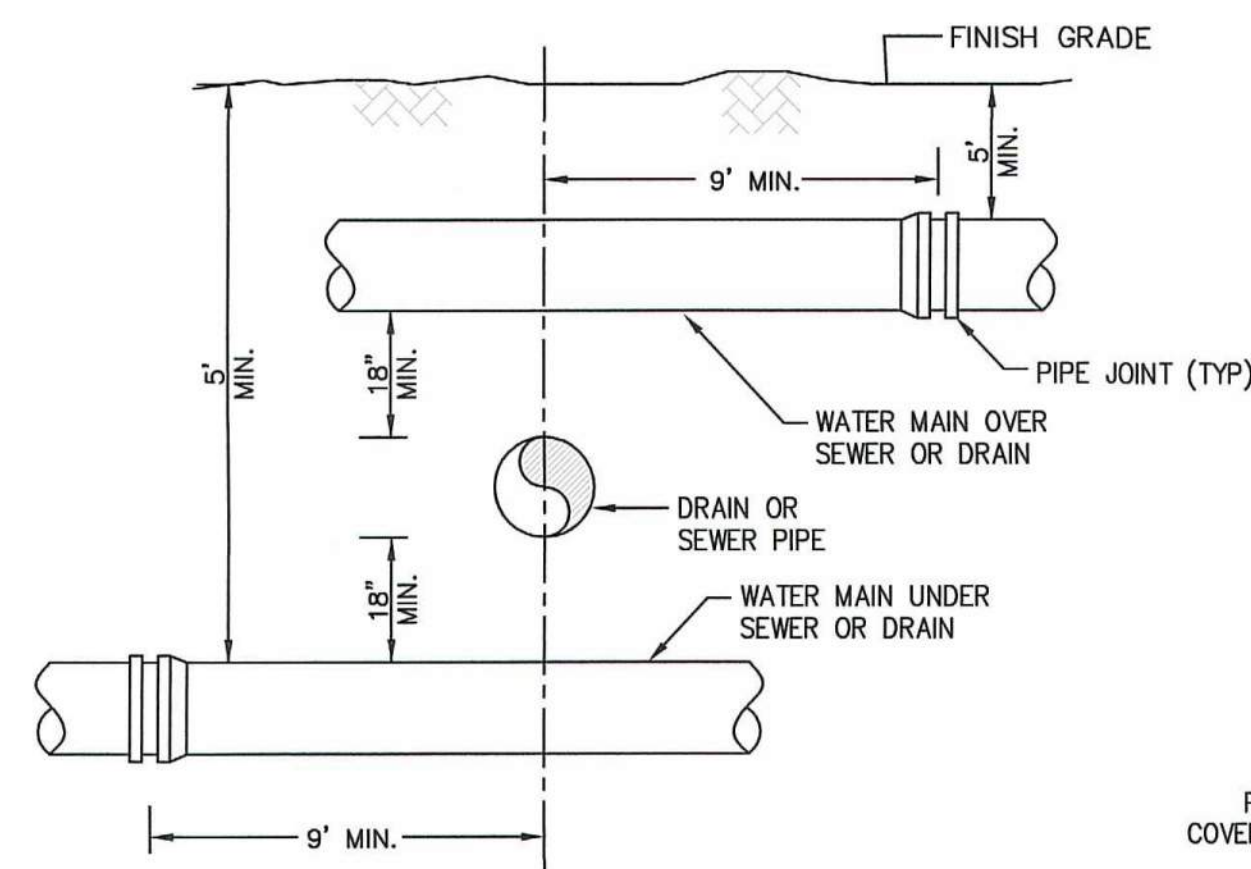
| Parts List | | | |
|------------|------|----------------------------------|-----------|
| ITEM | QTY. | DESCRIPTION | SIZE (in) |
| 1 | 3 | I.D. CONCRETE MANHOLE | 36 |
| 2 | 3 | INLET CHUTE (W/ FLOATABLES TRAP) | |
| 3 | 3 | OUTLET CHUTE | |
| 4 | 3 | INLET PIPE (BY OTHERS) | 12 |
| 5 | 3 | OUTLET PIPE (BY OTHERS) | 12 |
| 6 | 3 | HIGH FLOW BYPASS | |
| 7 | 3 | FRAME AND COVER (OR GRATE) | |



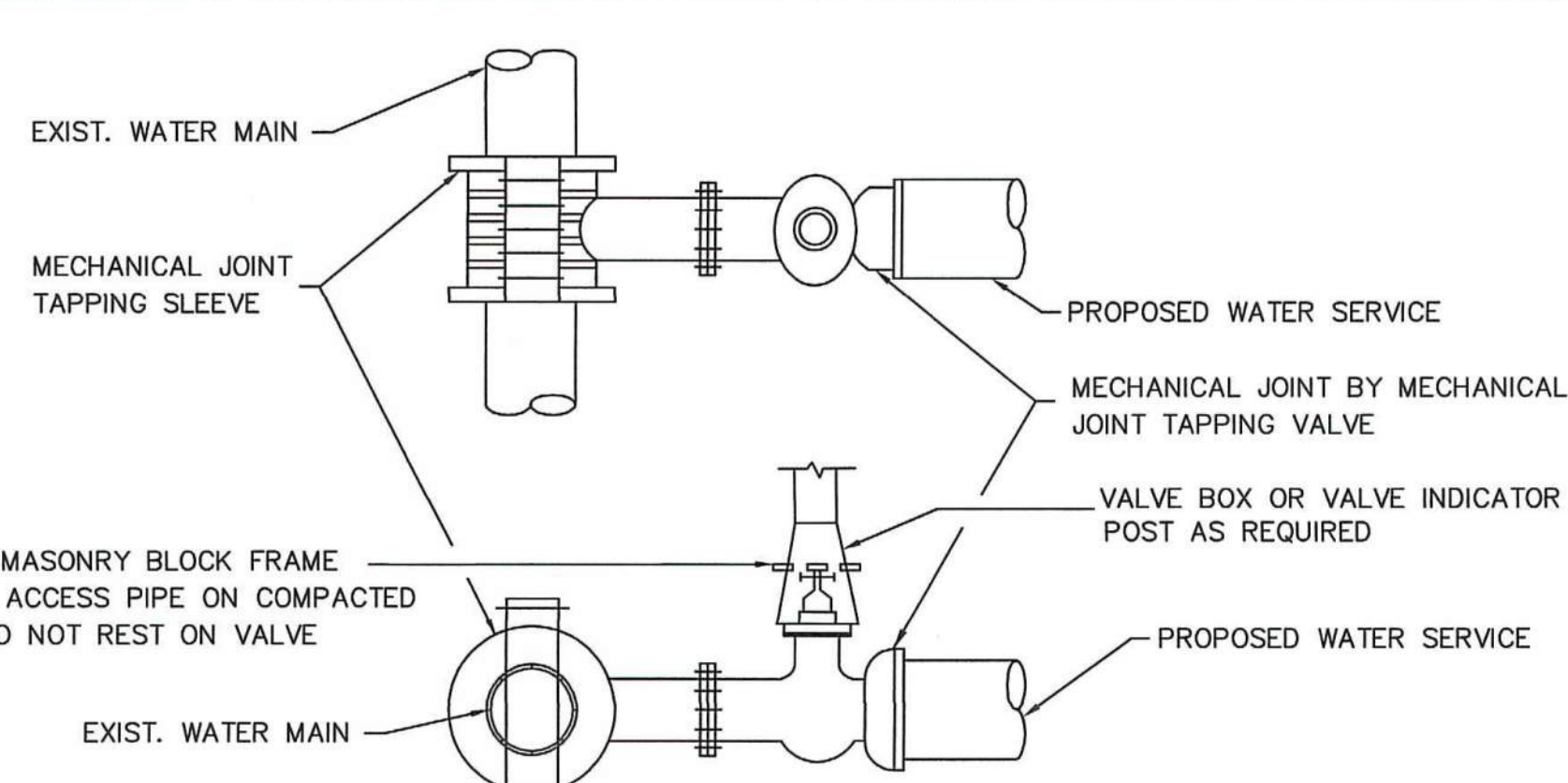
3' DIAMETER FIRST DEFENSE UNIT (FD-3HC)
N.T.S.



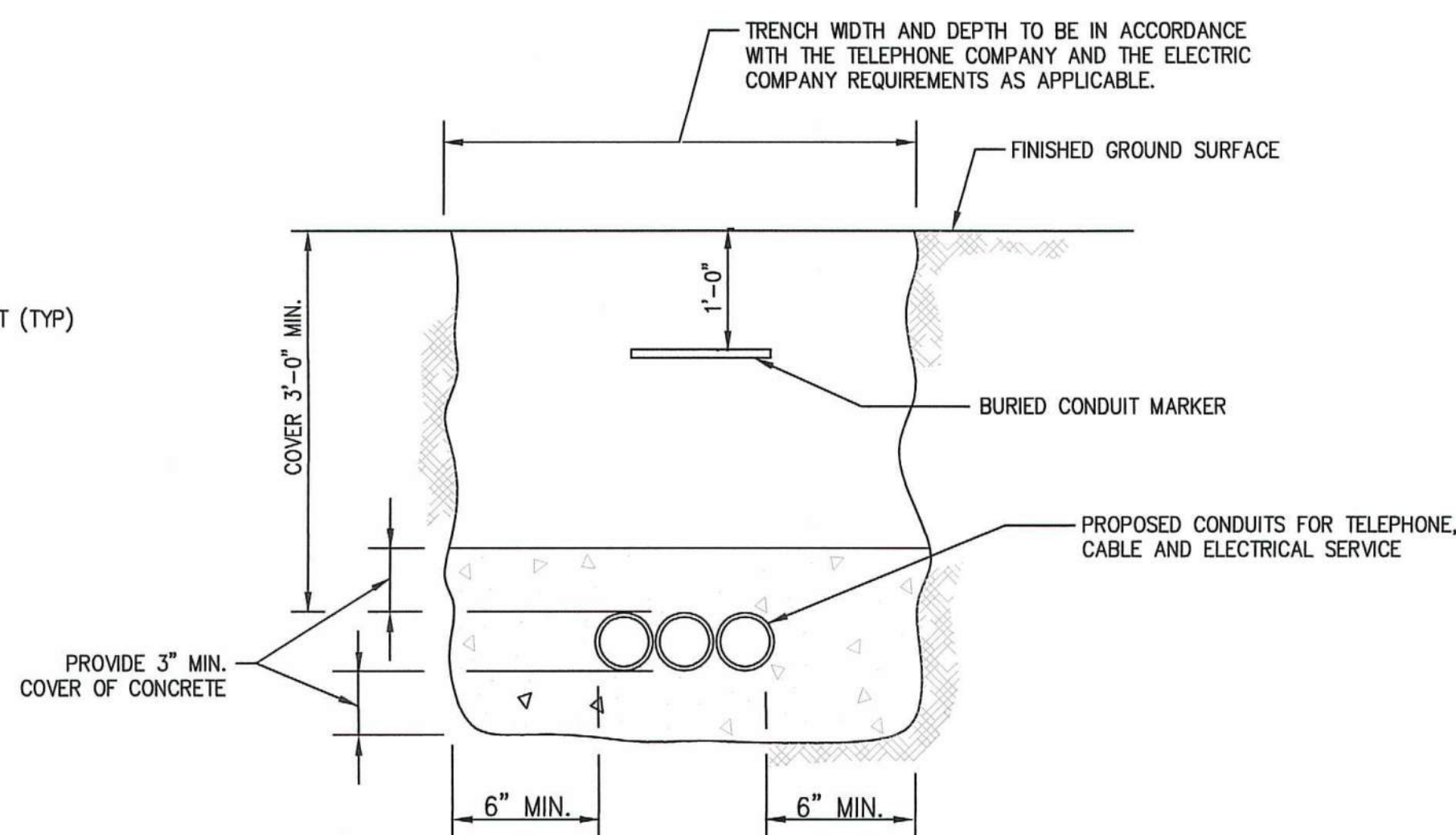
CATCH BASIN W/HOOD
SCALE: N.T.S.



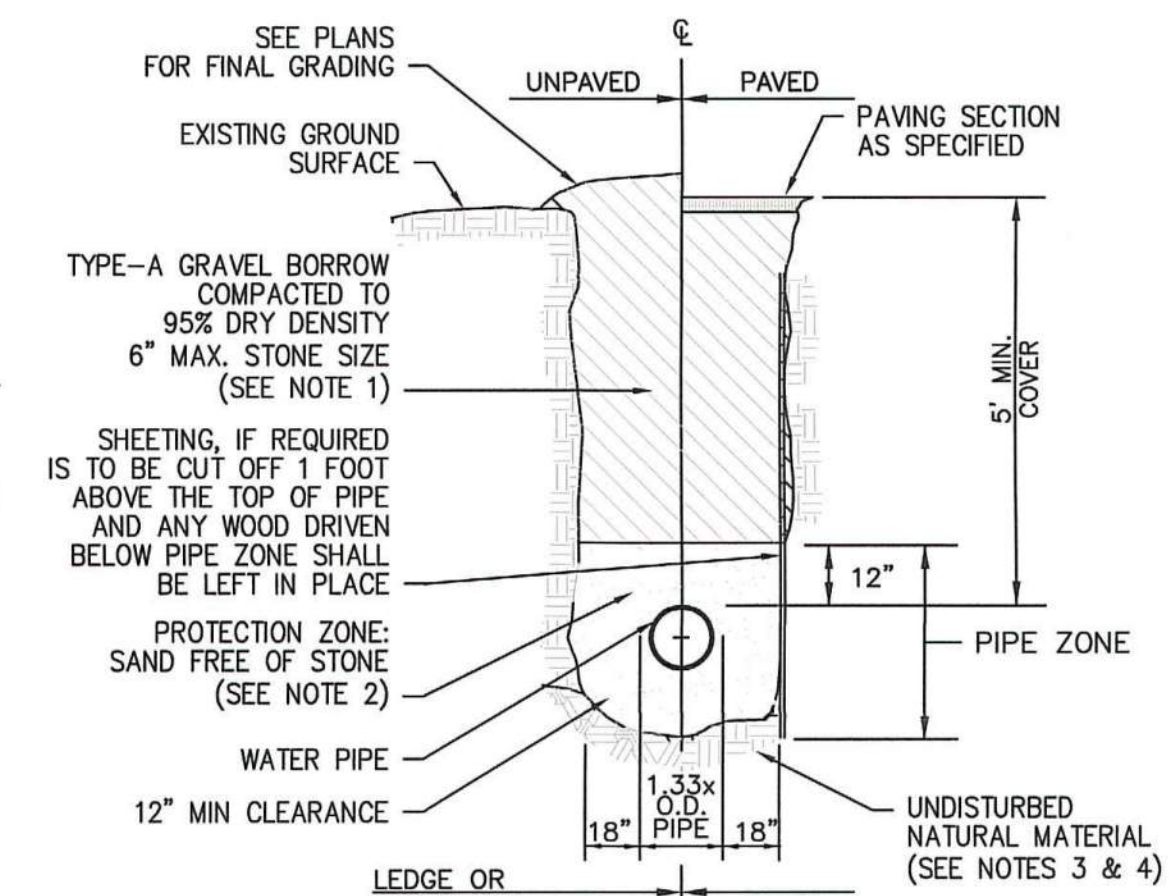
SEWER OR DRAIN CROSSING DETAIL
N.T.S.



TYPICAL TAPPING SLEEVE AND VALVE
SCALE: N.T.S.

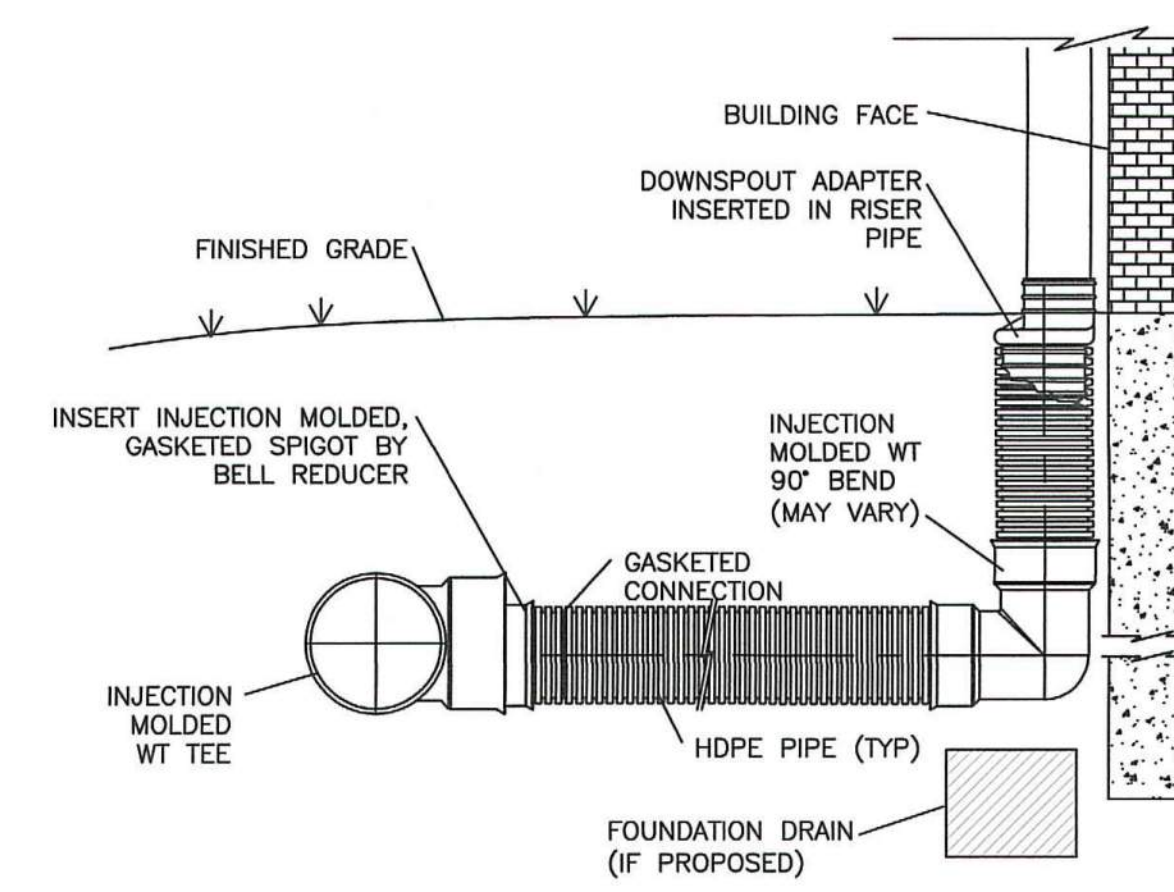


TYPICAL ELECTRIC/TELEPHONE/CABLE CONDUIT (US-UTILITY SERVICE)
SCALE: N.T.S.



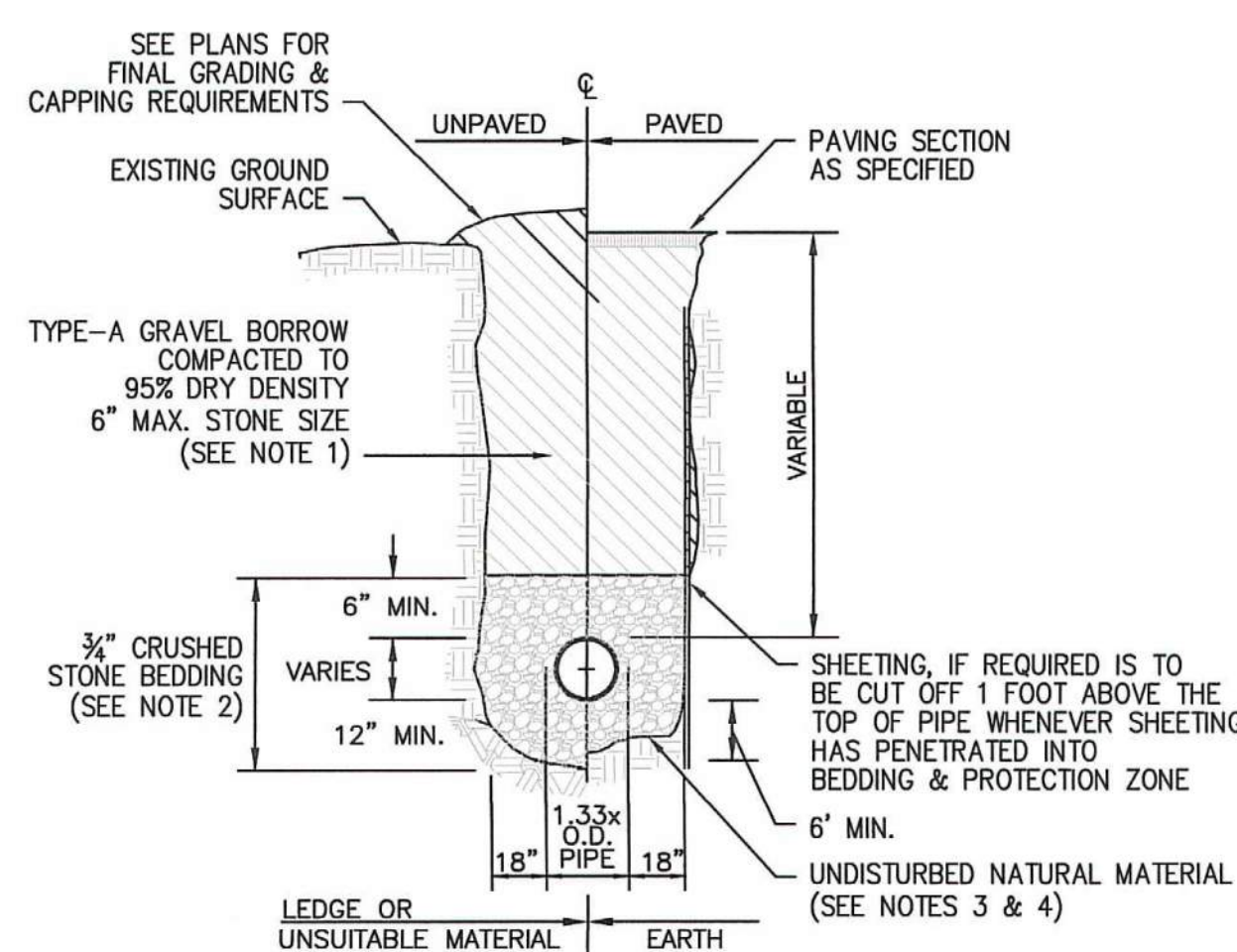
- NOTES
- GRAVEL BORROW SHALL CONFORM TO MASSDOT SPECIFICATION M1.03.0.
 - SAND BEDDING SHALL CONFORM TO MASSDOT SPECIFICATIONS.
 - SUBGRADE SHALL CONSIST OF NATIVE SOIL OR IMPORTED SOIL CONFORMING TO THE MASSDOT SPECIFICATION FOR ORDINARY BORROW AND SHALL BE FREE OF ANY UNSUITABLE SOILS OR MATERIAL.
 - UNSUITABLE SOIL OR MATERIAL SHALL INCLUDE BUT NOT BE LIMITED TO PEAT, MUCK, BROKEN PAVEMENT, STUMPS, LOGS, CONSTRUCTION DEBRIS OR ANY OTHER DELETERIOUS MATERIAL.

TYPICAL WATER TRENCH DETAIL
SCALE: N.T.S.



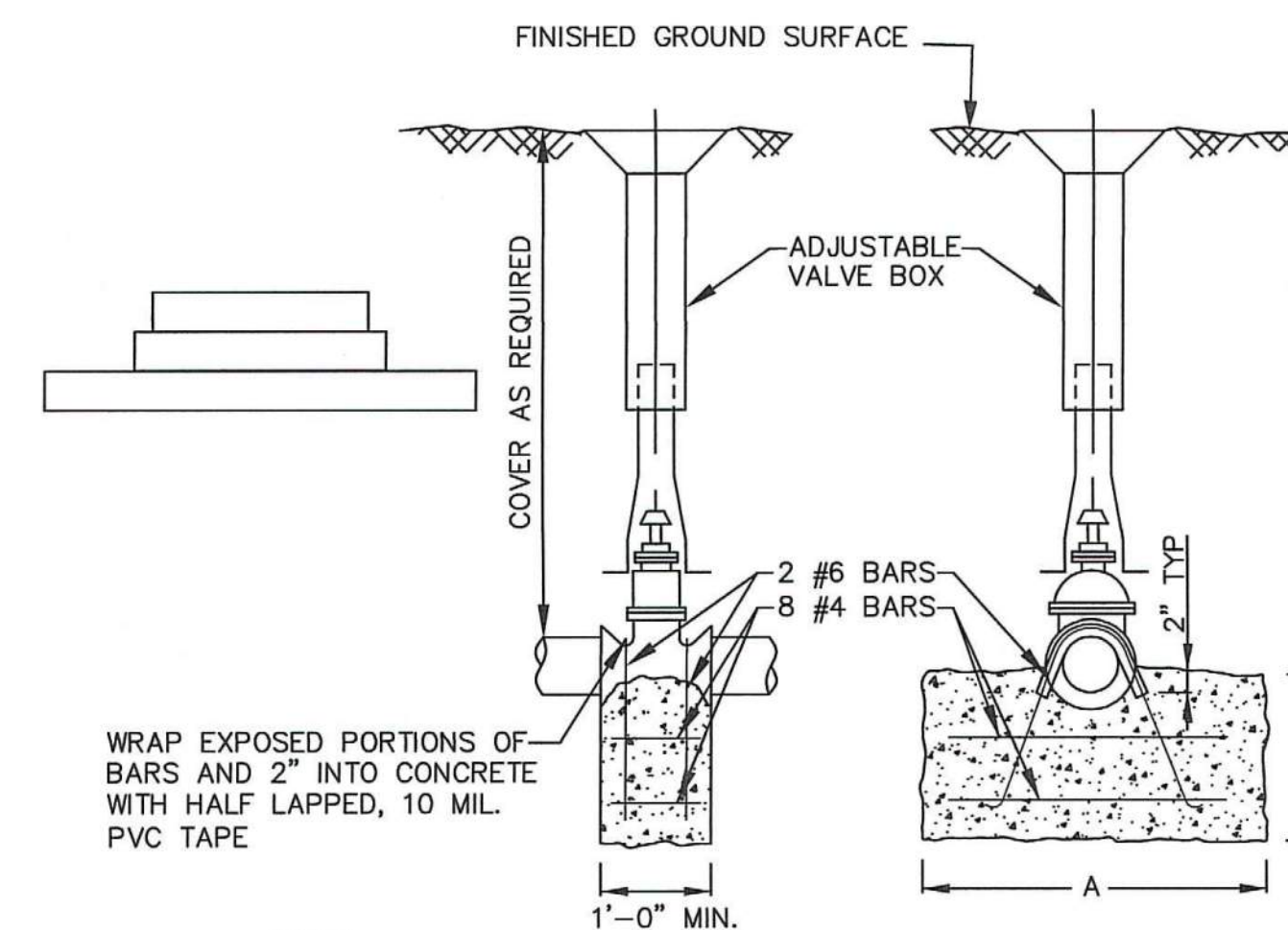
- NOTE:
- INJECTION MOLDED FITTING ARE AVAILABLE IN TEES, WYES, REDUCERS, 45° BENDS AND BELL/BELL COUPLERS.
 - WATERTIGHT (WT) JOINTS SHOWN. SOIL-TIGHT (ST) FITTINGS ARE ALSO AVAILABLE.

ROOF LEADER CONNECTION DETAIL
SCALE: N.T.S.



- NOTES
- GRAVEL BORROW SHALL CONFORM TO MASSDOT SPECIFICATION M1.03.0.
 - CRUSHED STONE BEDDING SHALL CONFORM TO MASSDOT SPECIFICATION M2.01.1.
 - SUBGRADE SHALL CONSIST OF NATIVE SOIL OR IMPORTED SOIL CONFORMING TO THE MASSDOT SPECIFICATION FOR ORDINARY BORROW AND SHALL BE FREE OF ANY UNSUITABLE SOILS OR MATERIAL.
 - UNSUITABLE SOIL OR MATERIAL SHALL INCLUDE BUT NOT BE LIMITED TO PEAT, MUCK, BROKEN PAVEMENT, STUMPS, LOGS, CONSTRUCTION DEBRIS OR ANY OTHER DELETERIOUS MATERIAL.

GRAVITY SEWER TRENCH DETAIL
SCALE: N.T.S.



- NOTES
- FLANGES, BOLTS, & NUTS SHALL BE KEPT CLEAR OF CONCRETE
 - VALVES SHALL OPEN TO THE RIGHT.

| SIZE OF GATE VALVE | ANCHOR BLOCK DIMENSIONS (FT.) | |
|--------------------|-------------------------------|-----|
| | A | B |
| 3" | 1.5 | 2.0 |
| 4" | 2.0 | 2.0 |
| 6" | 3.0 | 2.0 |
| 8" | 3.0 | 2.0 |
| 10" | 3.0 | 2.5 |
| 12" | 3.5 | 2.5 |

WATER GATE DETAIL
NOT TO SCALE

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
| 1 | | |

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SITE DEVELOPMENT PLAN
PROPOSED MEDICAL BUILDING
20 HENRY GRAF JR. ROAD
NEWBURYPORT, MASSACHUSETTS

PROFESSIONAL ENGINEER:

 BRADLEY C. MCKENZIE
 CIVIL
 No. 20917

APPLICANT:
 SPORTS MEDICINE NORTH
 ORTHOPEDIC SURGERY, INC.
 C/O CONSERV GROUP, INC.
 110 STATE ROAD
 SAGAMORE BEACH, MASSACHUSETTS 02862

DRAWN BY: ESS
 DESIGNED BY: ESS
 CHECKED BY: BCM
 APPROVED BY: BCM
 DATE: MARCH 17, 2020
 SCALE:
 PROJECT NO.: 219-180
 DWG. TITLE:

**CONSTRUCTION
 DETAILS**

DWG. NO:
D-1

NOT FOR CONSTRUCTION

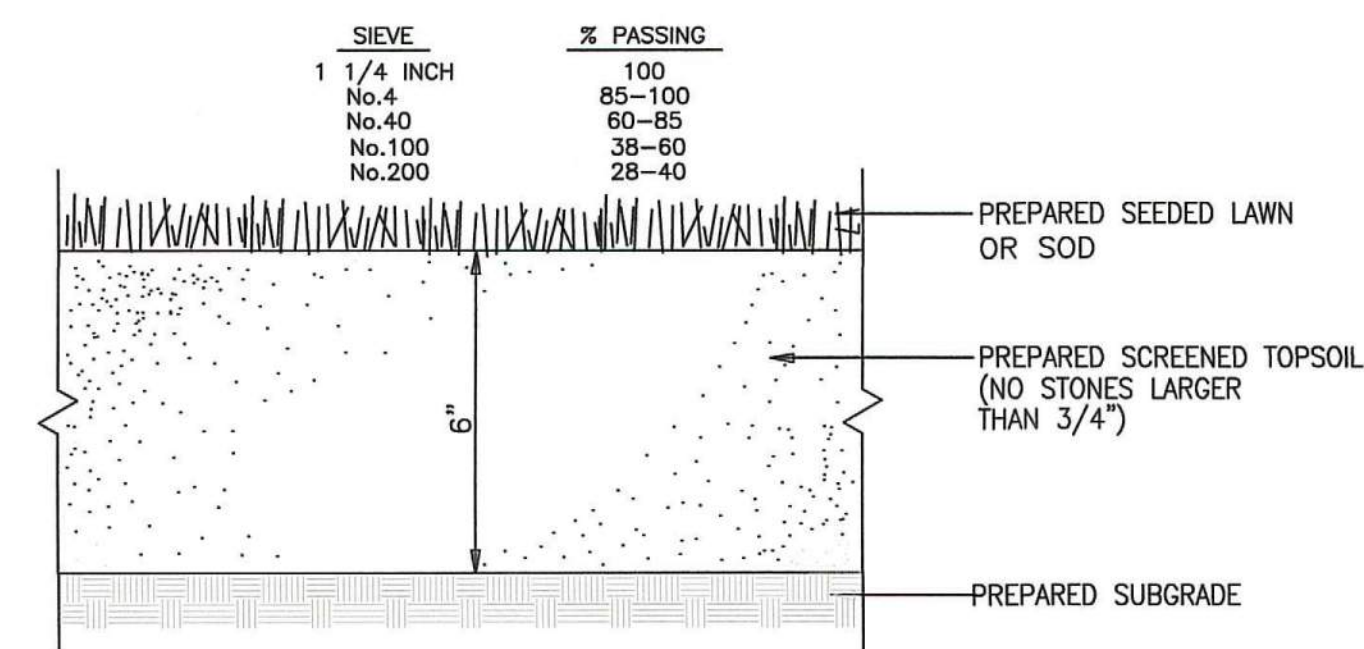
SEEDING SPECIFICATIONS

SEEDING RECOMMENDATIONS

1. **SEEDBED PREPARATION**
 - A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
 - B. STONES LARGER THAN FOUR INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT FOUR INCHES TO PREPARE A SEEDBED AND MIX FERTILIZER AND LIME INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.
2. **ESTABLISHING A STAND**
 - A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
 - AGRICULTURAL LIMESTONE: 2 TONS PER ACRE OR 100 LBS. PER SQ. FT.
 - NITROGEN (N): 50 LBS. PER ACRE OR 1.1 LBS. PER 1000 SQ. FT.
 - PHOSPHATE (P O₂): 100 LBS. PER ACRE OR 2.2 LBS. PER 1000 SQ. FT.
 - POTASH (K O₂): 100 LBS. PER ACRE OR 2.2 LBS. PER 1000 SQ. FT.
 - (NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OF 1,000 LBS. PER ACRE OF 5-10-10)
 - B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING, AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH 0.25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.
 - C. REFER TO SEEDING RATES AND SEEDING GUIDES FOR APPROPRIATE SEED MIXTURES AND RATES OF SEEDING.
 - D. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1.
3. **MULCH**
 - A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
 - B. MULCH WILL BE HELD IN PLACE USING TECHNIQUES AS SPECIFIED IN THE "BEST MANAGEMENT PRACTICES OPERATION AND MAINTENANCE PLAN"
4. **MAINTENANCE TO ESTABLISH A STAND**
 - A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
 - B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME ESTABLISHED.
 - C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED OCCASIONAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.

NOTES:

1. TOP OF LOAM (TOPSOIL) IS FINISHED GRADE.
2. TOPSOIL SHALL CONTAIN BETWEEN 5% AND 12% ORGANIC MATTER AND SHALL HAVE A MAXIMUM STONE SIZE OF 3/4" AND SHALL CONFORM TO THE FOLLOWING GRADATION:



SEEDED OR SODDED LAWN DETAIL
SCALE: N.T.S.

SEEDING RATES

| | POUND / ACRE | POUNDS / 1,000 S.F. |
|---------------------------|--------------|---------------------|
| A. TALL FESCUE | 20 | 0.45 |
| CREEPING RED FESCUE | 20 | 0.45 |
| REDTOP | 2 | 0.05 |
| TOTAL | 42 | 0.95 |
| B. TALL FESCUE | 15 | 0.35 |
| CREEPING RED FESCUE | 10 | 0.25 |
| BIRDSFOOT TREFOIL | 15 | 0.35 |
| TOTAL | 40 | 0.95 |
| C. TALL FESCUE | 20 | 0.45 |
| CREEPING RED FESCUE | 20 | 0.45 |
| BIRDSFOOT TREFOIL | 8 | 0.20 |
| TOTAL | 48 | 1.10 |
| D. BIRDSFOOT TREFOIL | 10 | 0.25 |
| REDTOP | 5 | 0.10 |
| REED CANARY GRASS | 15 | 0.35 |
| TOTAL | 30 | 0.70 |
| E. TALL FESCUE | 20 | 0.45 |
| FLATPEA | 30 | 0.75 |
| TOTAL | 50 | 1.20 |
| F. CREEPING RED FESCUE 1/ | 85 | 2.00 |
| KENTUCKY BLUEGRASS 1/ | 85 | 2.00 |
| TOTAL | 170 | 4.00 |
| G. TALL FESCUE 1/ | 150 | 3.60 |

TEMPORARY SEEDING RATES

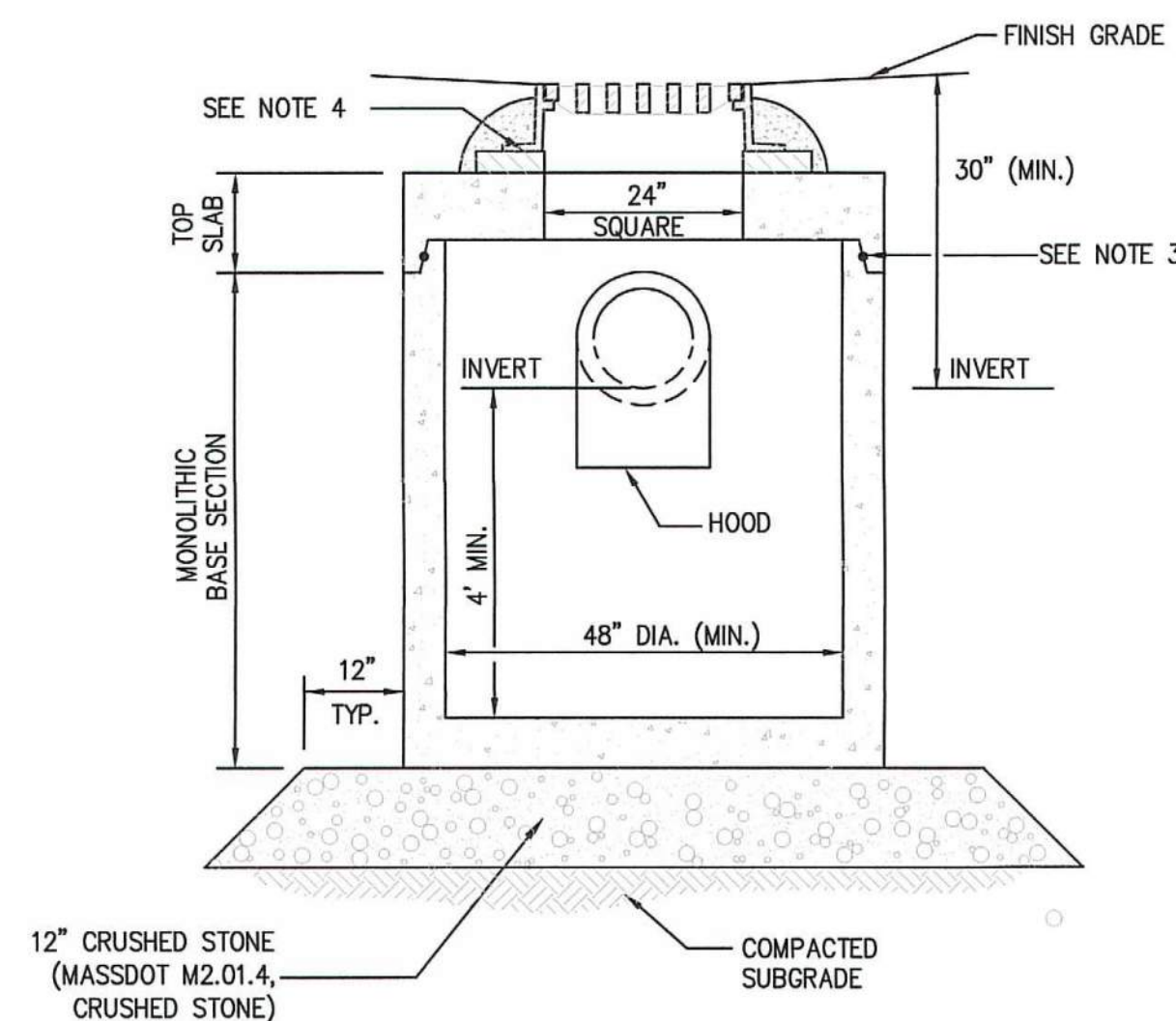
| | | | |
|-----------------|-----|------|--|
| H. WINTER RYE | 112 | 2.50 | (BEST FOR FALL SEEDING, AUG 15 TO SEPT. 5) |
| OATS | 80 | 2.00 | (BEST FOR SPRING SEEDING, BEFORE MAY 15) |
| ANNUAL RYEGRASS | 40 | 1.00 | (BEST FOR FALL SEEDING, AUG 15 TO SEPT. 15) (MAY BE USED EARLY SPRING ALSO) |

1/ FOR HEAVY USE ATHLETIC FIELDS CONSULT THE UNIVERSITY OF NEW HAMPSHIRE COOPERATIVE EXTENSION TURF SPECIALIST FOR CURRENT VARIETIES AND SEEDING RATES.

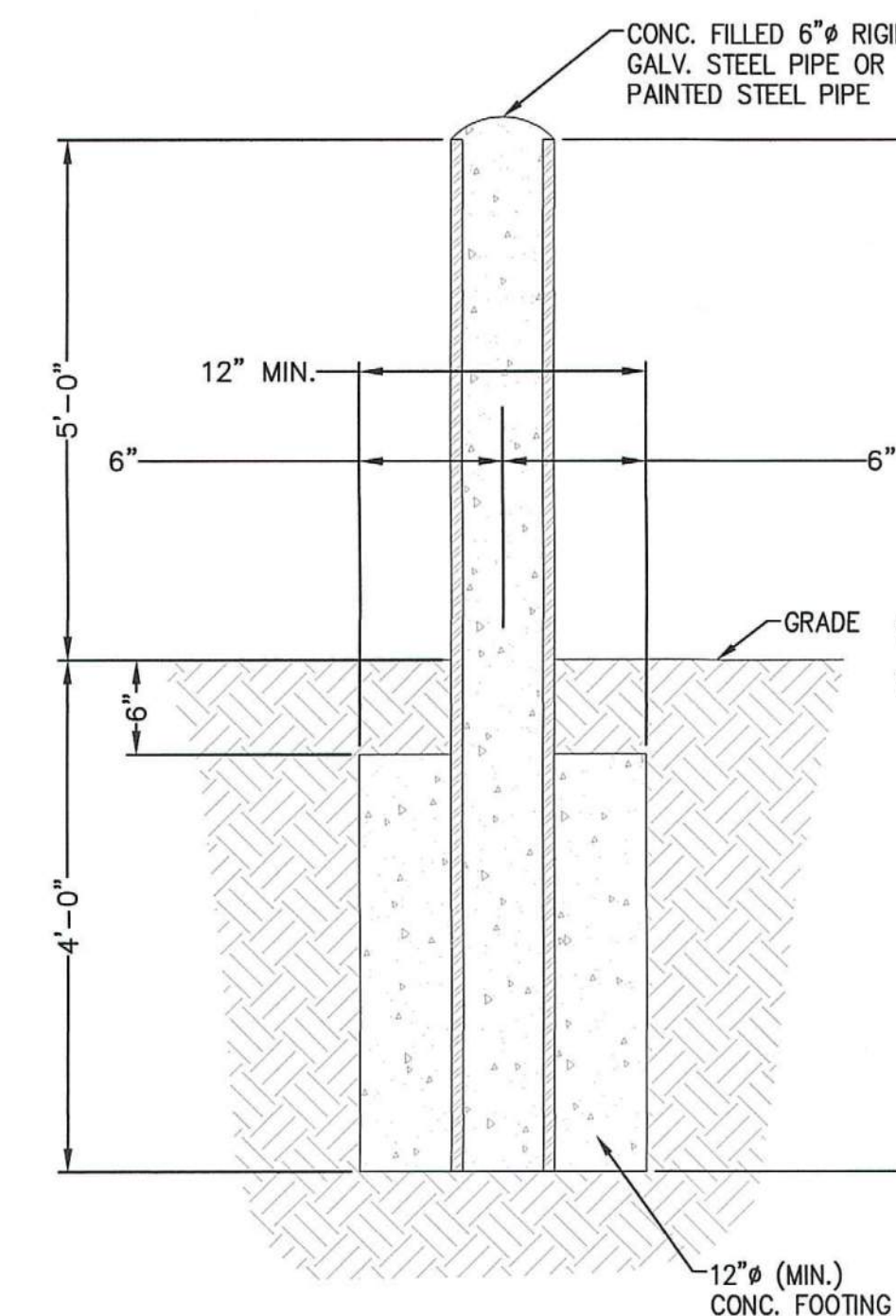
SEEDING GUIDE

| USE | SEEDING MIXTURE 1/ |
|---|--------------------|
| STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS | E |
| WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER | D |
| LAWN AREAS | F |

- NOTES:**
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 2. PROVIDE DOGHOUSE OPENING FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. TOP SLAB SHALL NOT REST DIRECTLY ON PIPE. GROUT ALL PIPE CONNECTIONS (NON-SHRINK GROUT).
 3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
 4. CATCH BASIN FRAME AND GRATE (4" DEPTH) SHALL BE SET IN FULL MORTAR BED.
 5. ADJUST TO FINISH GRADE WITH CLAY BRICK AND MORTAR AS REQUIRED.



SHALLOW CATCH BASIN
SCALE: N.T.S.



BOLLARD DETAIL
N.T.S.

| REV | DATE | DESCRIPTION | BY | APP |
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**SITE DEVELOPMENT PLAN
PROPOSED MEDICAL BUILDING
20 HENRY GRAF JR. ROAD
NEWBURYPORT, MASSACHUSETTS**

PROFESSIONAL ENGINEER:



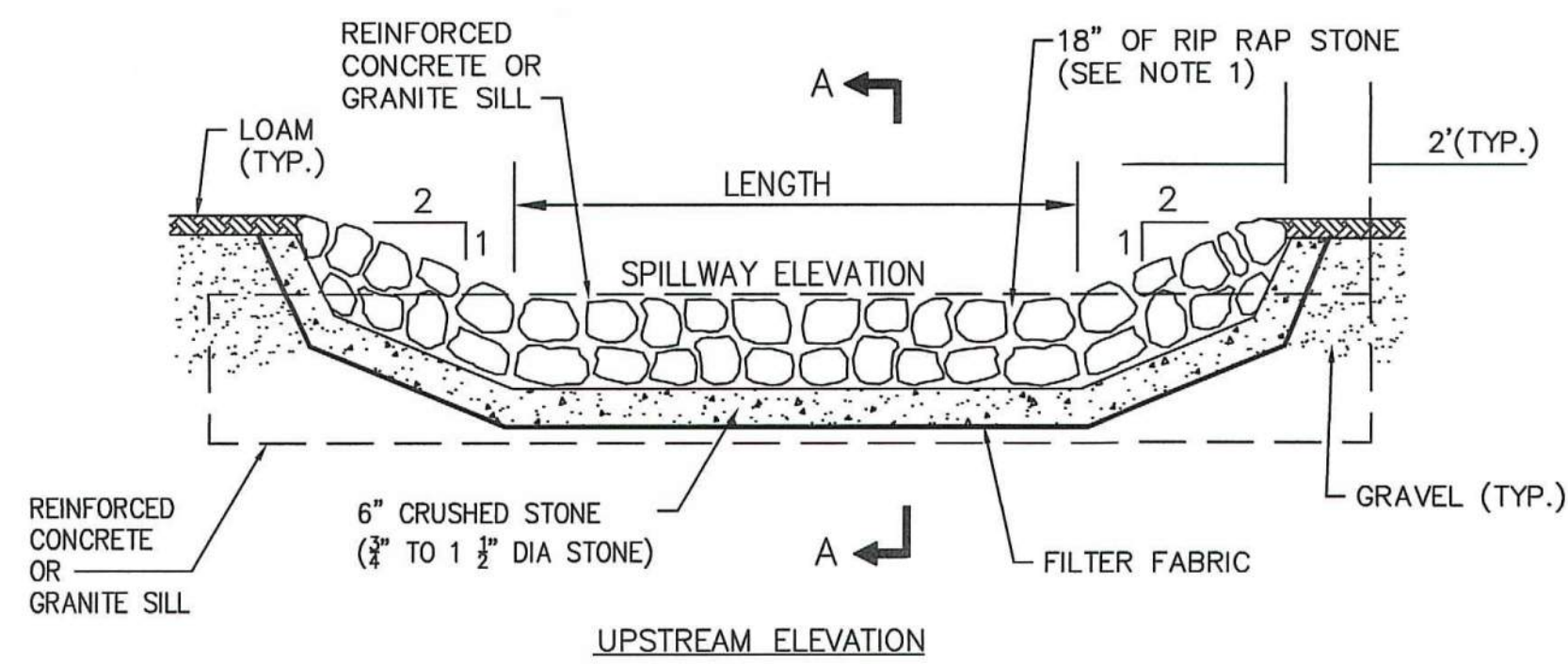
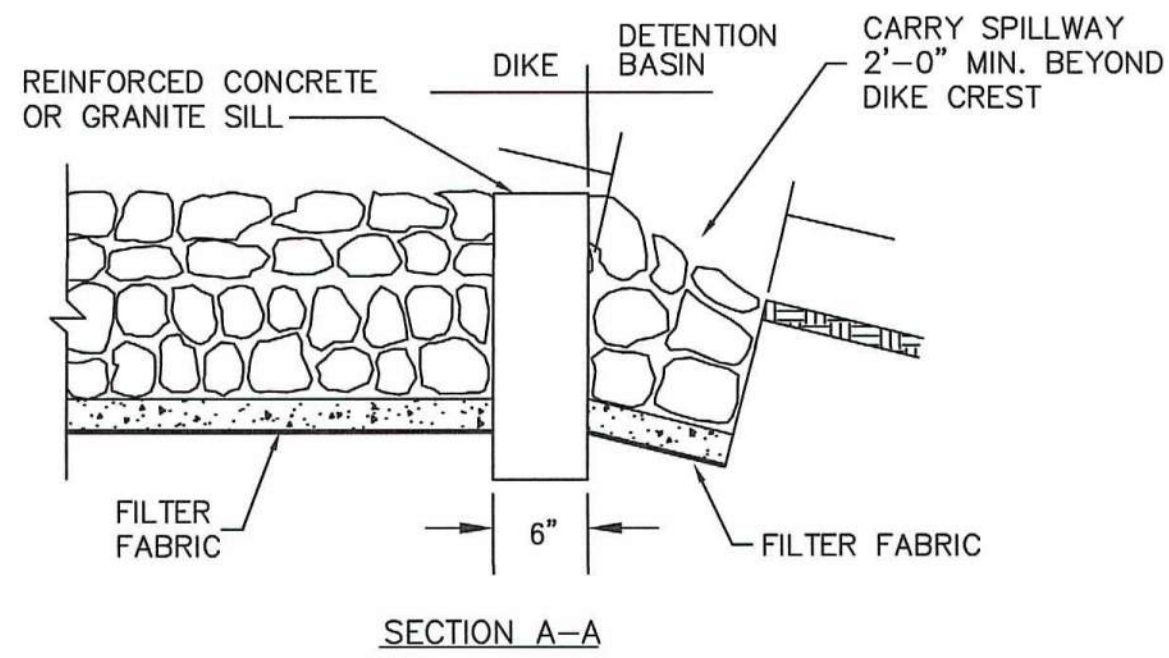
APPLICANT:
**SPORTS MEDICINE NORTH
ORTHOPEDIC SURGERY, INC.
C/O CONSERV GROUP, INC.**
110 STATE ROAD
SAGAMORE BEACH, MASSACHUSETTS 02862

DRAWN BY: ESS
DESIGNED BY: ESS
CHECKED BY: BCM
APPROVED BY: BCM
DATE: MARCH 17, 2020
SCALE:
PROJECT NO.: 219-180
DWG. TITLE:

**CONSTRUCTION
DETAILS**

DWG. NO:
D-3

NOT FOR CONSTRUCTION

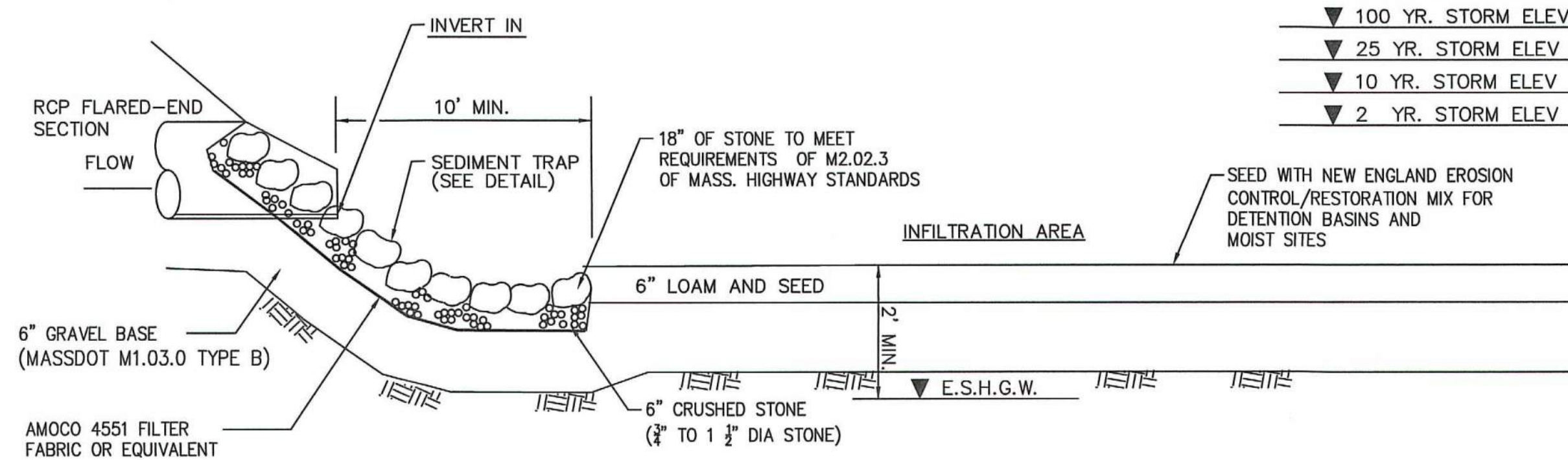


SPILLWAY SCHEDULE

| BASIN | SPILLWAY ELEV. | LENGTH | 100-YR FLOOD ELEV. |
|-------|----------------|--------|--------------------|
| #1 | 14.35 | 6 FT | 13.91 |
| #2 | 14.50 | 2 FT | 14.98 |

NOTE:
1. RIP RAP TO BE HAND CHINKED WITH A SMOOTH SURFACE ALONG THE TOP OF THE DIKE AND A ROUGH SURFACE ALONG THE DOWNSTREAM FACE AND TOE OF THE DIKE. STONE TO MEET M2.02.3 REQUIREMENTS.

SPILLWAY DETAIL
SCALE: N.T.S.

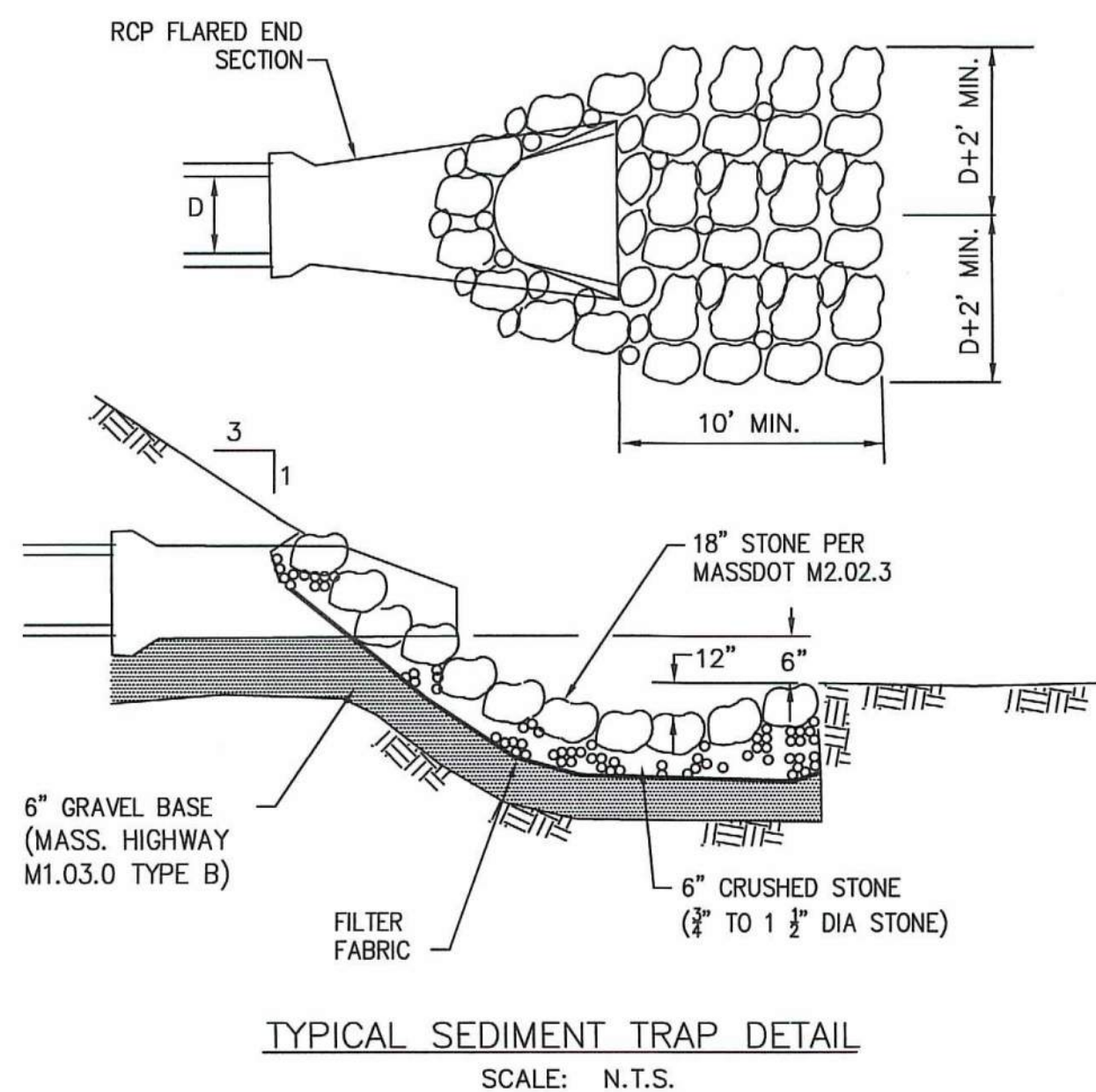


INTEGRATION BASIN SCHEDULE

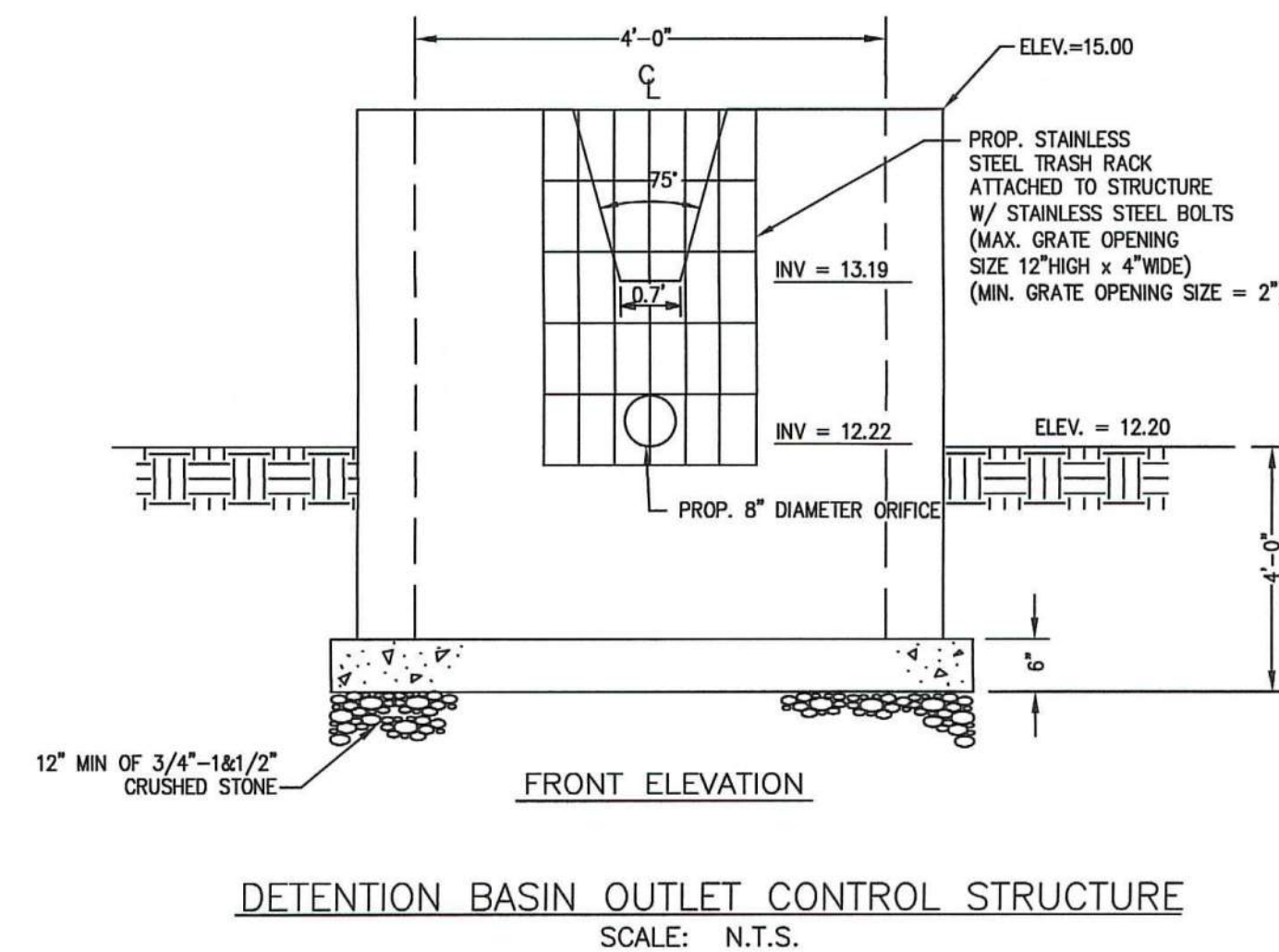
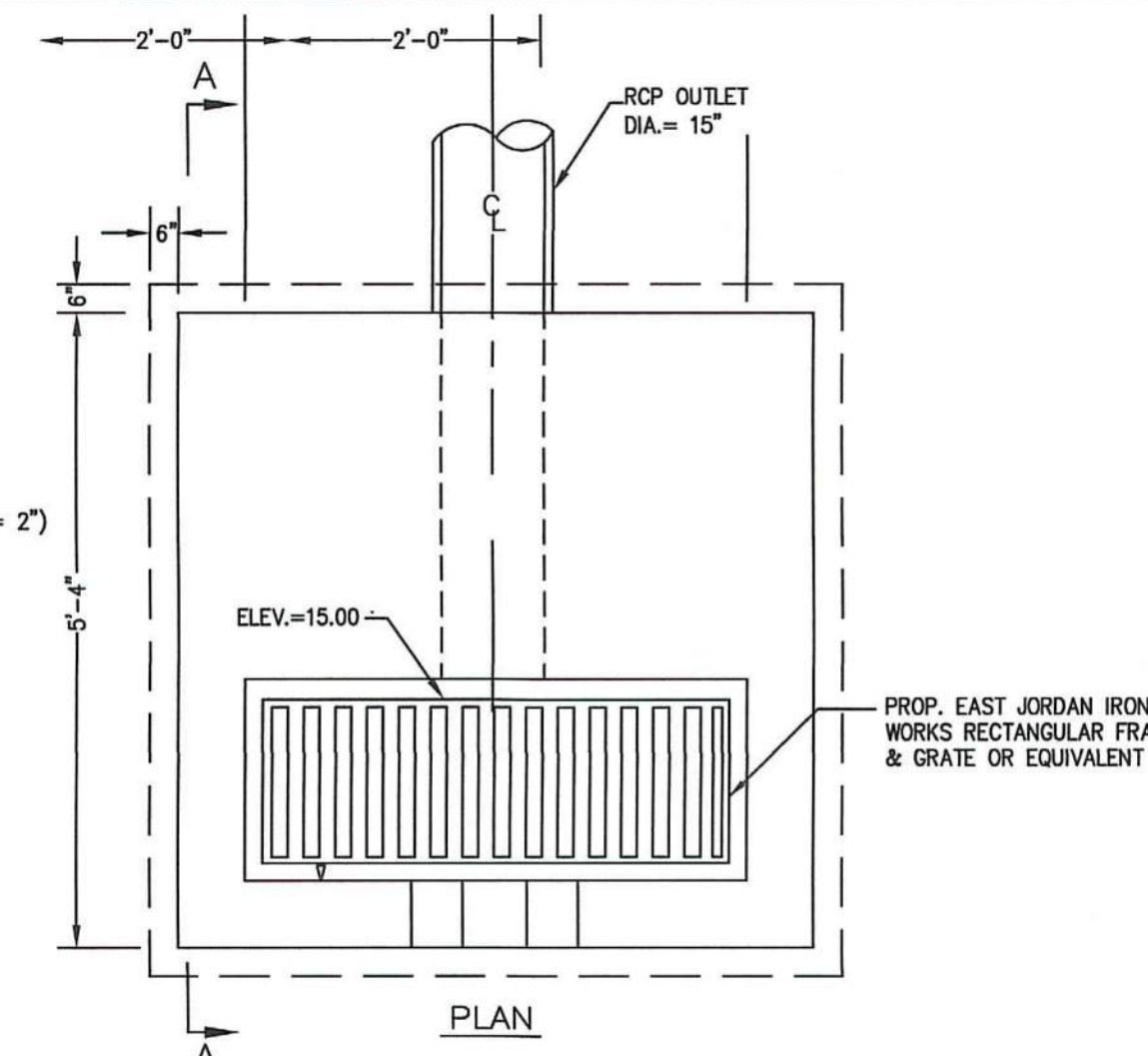
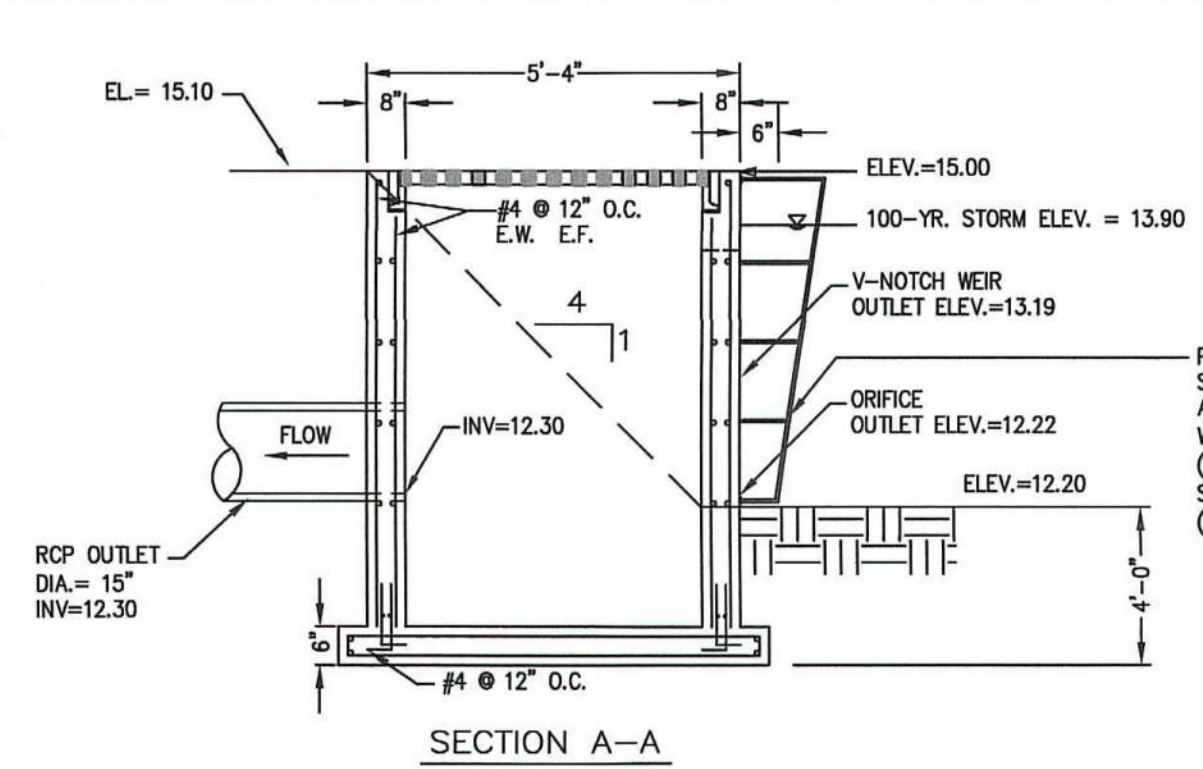
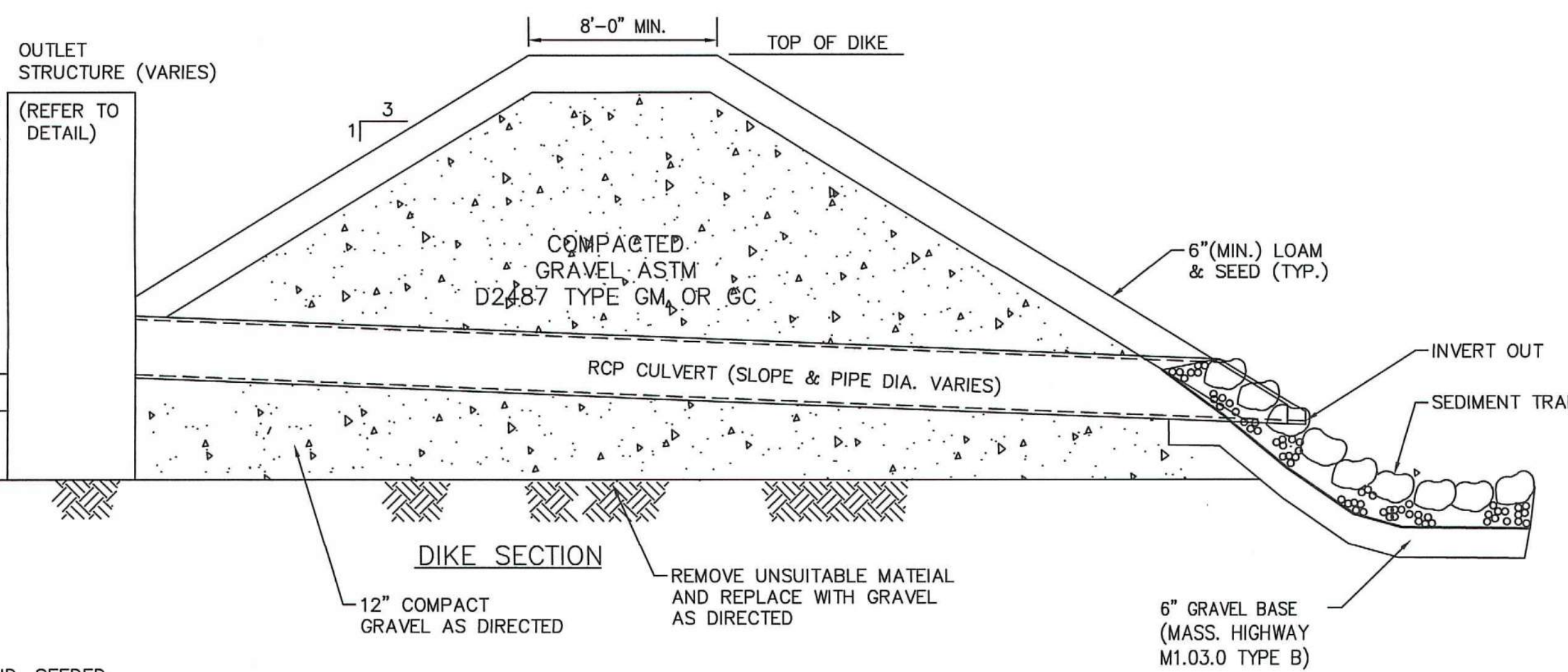
| | BASIN #1 | BASIN #2 | |
|------------------------|-------------------|----------|------------------------|
| APPROX. EXISTING GRADE | 15.50 | 16.30 | APPROX. EXISTING GRADE |
| INVERT IN | 13.80/13.50/13.27 | 14.10 | INVERT IN |
| STORM ELEV. | | | STORM ELEV. |
| 100-YR STORM | 13.91 | 14.98 | 100-YR STORM |
| 25-YR STORM | 13.66 | 14.83 | 25-YR STORM |
| 10-YR STORM | 13.51 | 14.76 | 10-YR STORM |
| 2-YR STORM | 13.18 | 14.63 | 2-YR STORM |
| TOP OF DIKE | 15.00 | 16.00 | TOP OF DIKE |

- NOTES:
- FILL AND BASE FOR DIKES SHALL INSURE WATER TIGHTNESS AND STABILITY.
 - BASIN SIDE SLOPES AND BOTTOM SHALL BE PROVIDED WITH 6" OF LOAMY SAND, SEEDED AT A RATE OF 2 POUNDS OF RED TOP, 15 POUNDS OF CREEPING RED FESCUE AND 20 POUNDS TALL FESCUE PER ACRE.
 - THE CONTRACTOR SHALL NOT DISCHARGE SEDIMENT-LADEN WATER TO DETENTION BASIN COMPONENTS DURING CONSTRUCTION, INCLUDING DEWATERING OR TEMPORARY SURFACE RUNOFF.
 - ALL CONTRIBUTING AREAS TO THE BASIN SHALL BE FULLY STABILIZED PRIOR TO THE BASIN BEING PLACED INTO SERVICE.
 - THE CONTRACTOR SHALL PROVIDE PROTECTION ABOVE AND AROUND THE DETENTION AREA OF THE BASIN FROM CONSTRUCTION VEHICLE ACTIVITY. NO HEAVY EQUIPMENT SHALL BE ALLOWED ON THE BASIN FLOORS AFTER INSTALLATION. CONTRACTOR SHALL MINIMIZE CONSTRUCTION EQUIPMENT TRAFFIC WITHIN THE BASIN AT ALL TIMES DURING AND AFTER CONSTRUCTION.

DETENTION BASIN SECTION (BASIN #1, #2)
SCALE: N.T.S.



TYPICAL SEDIMENT TRAP DETAIL
SCALE: N.T.S.



DETENTION BASIN OUTLET CONTROL STRUCTURE
SCALE: N.T.S.

| REV | DATE | DESCRIPTION | BY | APP |
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**SITE DEVELOPMENT PLAN
PROPOSED MEDICAL BUILDING
20 HENRY GRAF JR. ROAD
NEWBURYPORT, MASSACHUSETTS**

PROFESSIONAL ENGINEER:



APPLICANT:
SPORTS MEDICINE NORTH
ORTHOPEDIC SURGERY, INC.
C/O CONSERV GROUP, INC.
110 STATE ROAD
SAGAMORE BEACH, MASSACHUSETTS 02862

DRAWN BY: ESS
DESIGNED BY: ESS
CHECKED BY: BCM
APPROVED BY: BCM
DATE: MARCH 17, 2020
SCALE:
PROJECT NO.: 219-180
DWG. TITLE:

**CONSTRUCTION
DETAILS**

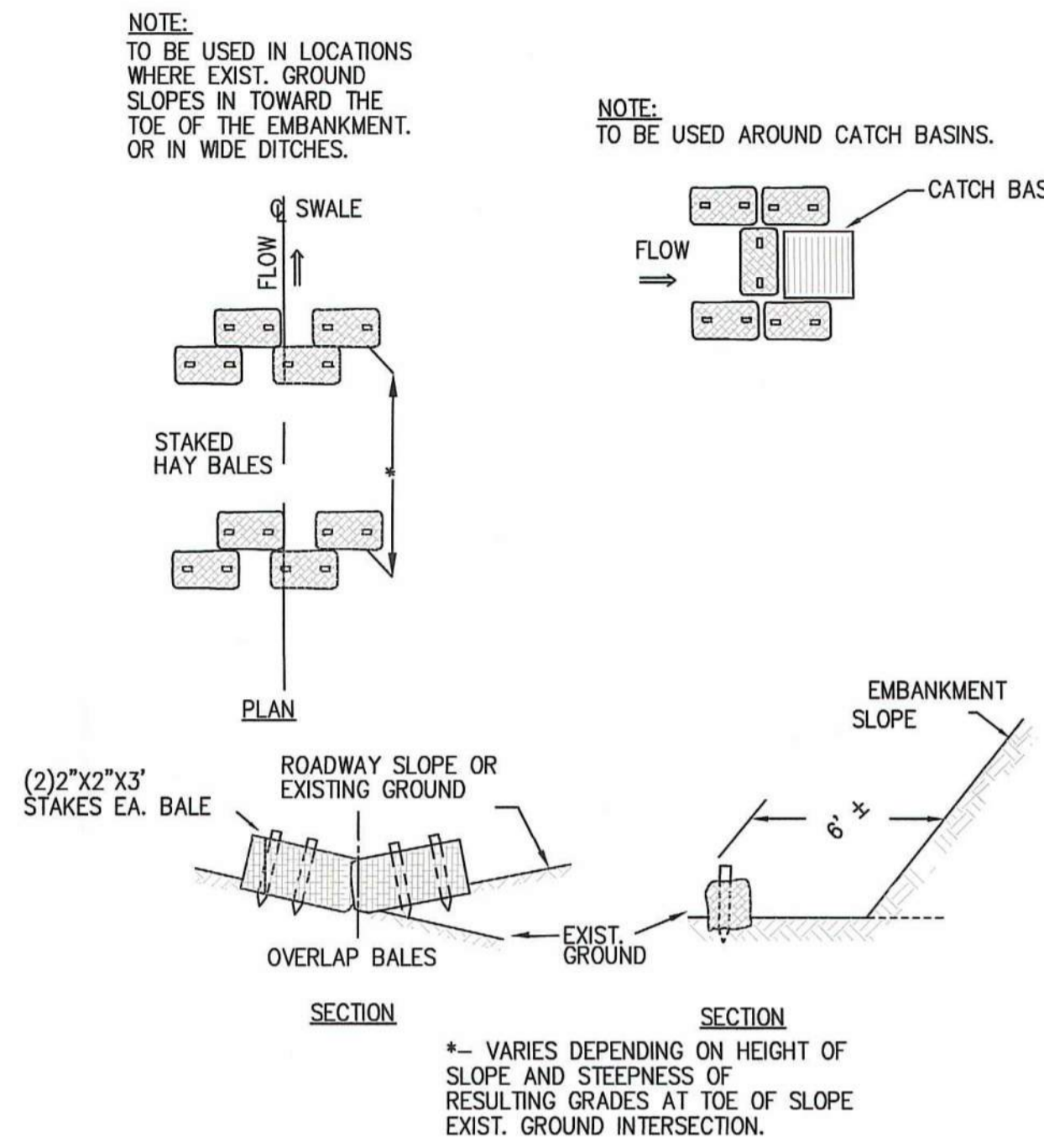
DWG. NO:

D-4

NOT FOR CONSTRUCTION

EROSION AND SEDIMENTATION CONTROL

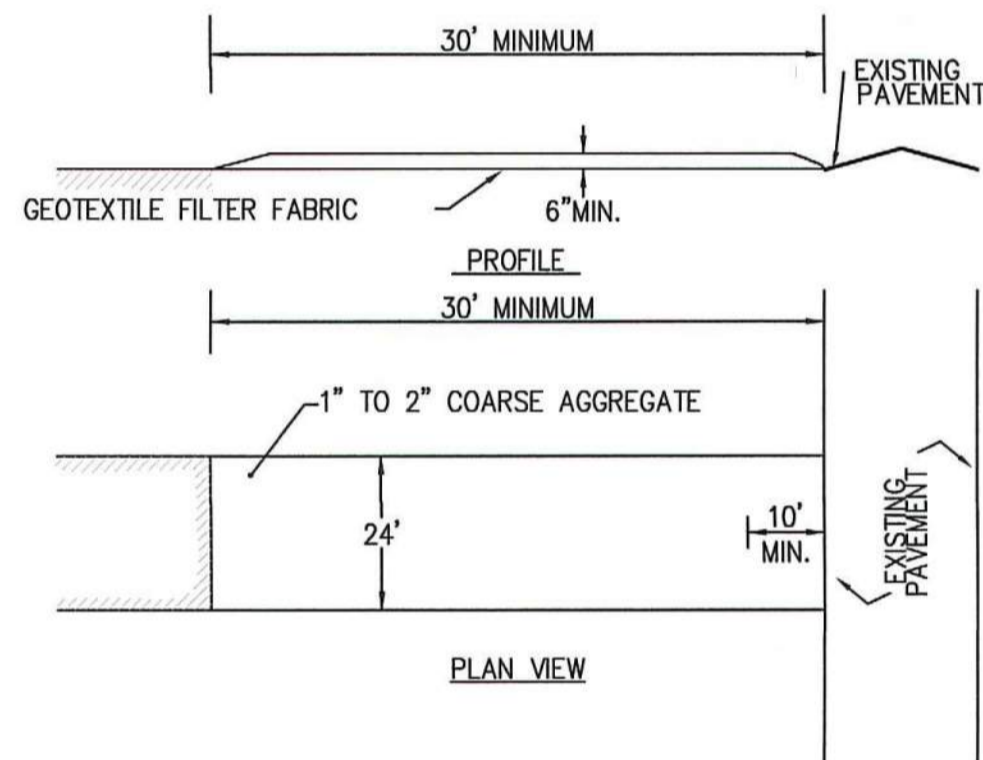
- WIDELY ACCEPTED PRACTICES FOR REDUCING EROSION AND SEDIMENTATION WILL BE EMPLOYED IN THE DEVELOPMENT OF THIS SITE.
- THE DEVELOPMENT OF THE SITE HAS BEEN PLANNED TO ENHANCE THE EXISTING TOPOGRAPHY AND VEGETATIVE COVER. ALL NATURAL DRAINAGE PATTERNS OF THE SITE HAVE BEEN MAINTAINED.
- STEEP SLOPES, WHERE POSSIBLE, WILL NOT BE DISTURBED.
- NATURAL WATERWAYS WILL BE PRESERVED AND PROTECTED, AND EXISTING VEGETATION WILL BE RETAINED AND PROTECTED TO THE EXTENT POSSIBLE.
- THE ROADWAY CONFORMS TO EXISTING LAND CONTOURS WHERE PRACTICAL.
- THE CONTRACTOR SHALL MINIMIZE THE AREA OF DISTURBED LAND TO THE EXTENT FEASIBLE.
- SEDIMENT CONTROL MEASURES WILL BE APPLIED TO CONTROL ANY SEDIMENTS THAT MAY BE PRODUCED AS A RESULT OF SITE CONSTRUCTION ACTIVITIES. EROSION AND DEPOSITION OF SEDIMENT WILL BE CLOSELY MONITORED DURING CONSTRUCTION.
- TEMPORARY EROSION CONTROL MEASURES WILL INCLUDE, BUT NOT BE LIMITED TO, HAY BALE CHECK DAMS, SEDIMENT FOREBAYS, STABILIZED CONSTRUCTION ENTRANCES, FILTER FABRIC SILT FENCES, SEEDING AND MULCHING, AND SEEDED FILTER STRIPS.
- TOPSOIL STRIPPED FROM CUT AND FILL AREAS WILL BE STOCKPILED FOR LOAMING AND SEEDING AT LATER CONSTRUCTION STAGES. THE STOCKPILES SHALL BE LOCATED SO AS TO ACT AS TEMPORARY DIVERSIONS, GENERALLY ON THE UPHILL SLOPE.
- ALL CUT AREAS LOCATED AT TOES OF SLOPES AND DITCHES THAT HAVE GRADES EXCEEDING 5% SHALL BE STABILIZED WITH RIP-RAP. THE RIP-RAP SHALL CONSIST OF 50% STONES GREATER THAN 6" IN SIZE. SWALES SHALL BE 6" IN DEPTH AND APPROXIMATELY 5' IN WIDTH. ALL SLOPES WILL BE BLENDED INTO THE EXISTING TOPOGRAPHY TO MINIMIZE IMPACT.
- SITE DEVELOPMENT WILL NOT COMMENCE UNTIL ALL TEMPORARY EROSION CONTROL MEASURES ARE IN PLACE. THESE MEASURES SHALL BE EMPLOYED UNTIL FINAL PAVING AND ADEQUATE VEGETATION HAS BEEN ESTABLISHED.
- REFER TO CONSTRUCTION PHASE BEST MANAGEMENT PRACTICES AS SPECIFIED IN "BEST MANAGEMENT PRACTICES OPERATION AND MAINTENANCE PLAN" PREPARED BY MCKENZIE ENGINEERING GROUP, INC. FOR STRUCTURAL STABILIZATION AND DUST CONTROL EROSION AND SEDIMENTATION CONTROL MEASURES.
- STABILIZATION PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE TEMPORARY SEEDING, GEOTEXTILES (JUTE MESH), MULCHING, AND PERMANENT SEEDING.



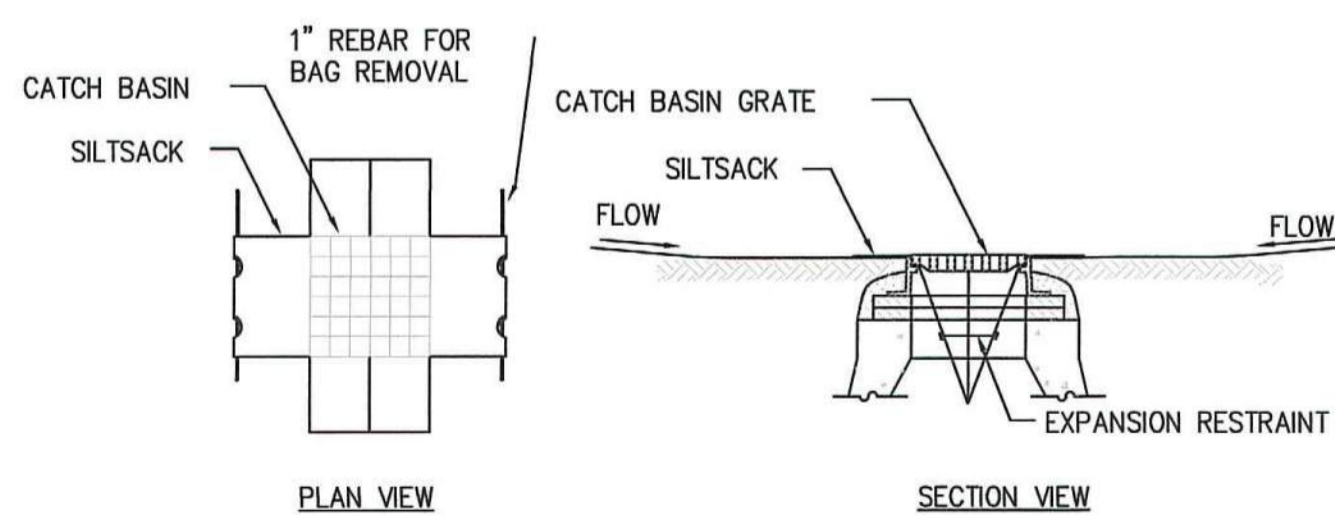
TEMPORARY EROSION CONTROL
SCALE: N.T.S.

(SCE) CONSTRUCTION SPECIFICATIONS:

- STONE FOR A STABILIZATION CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE.
- THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT A 30 FOOT MINIMUM LENGTH WOULD APPLY.
- THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
- THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN A FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICH EVER IS GREATER.
- GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
- ALL SURFACE WATER THAT IS FLOWING TO OR DEVERTED TOWARDS THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED PROMPTLY.



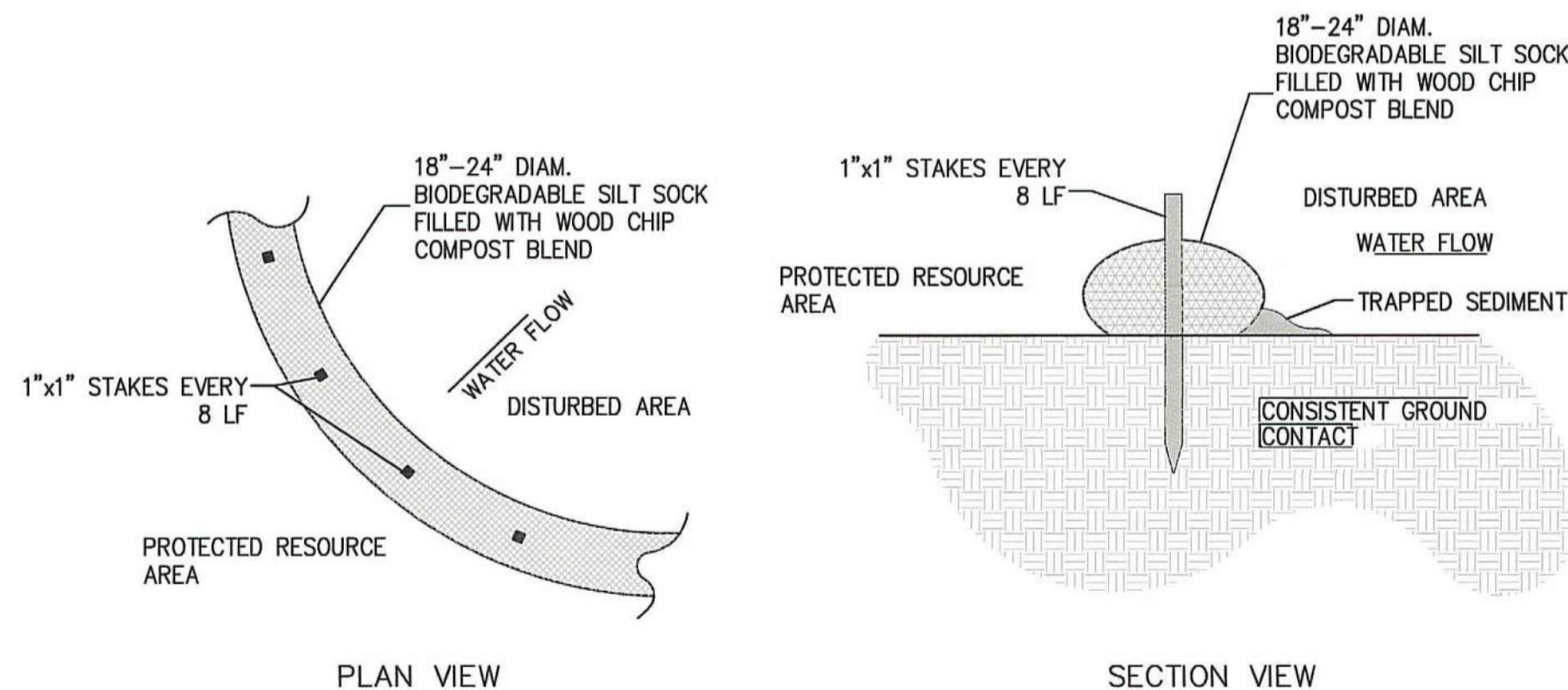
STABILIZED CONSTRUCTION ENTRANCE (SCE) DETAIL
SCALE: N.T.S.



SILTSACK SEDIMENT TRAP CONSTRUCTION NOTES:

- INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND HAY BALES HAVE BEEN REMOVED.
- GRATE TO BE PLACED OVER SILTSACK.
- SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED.

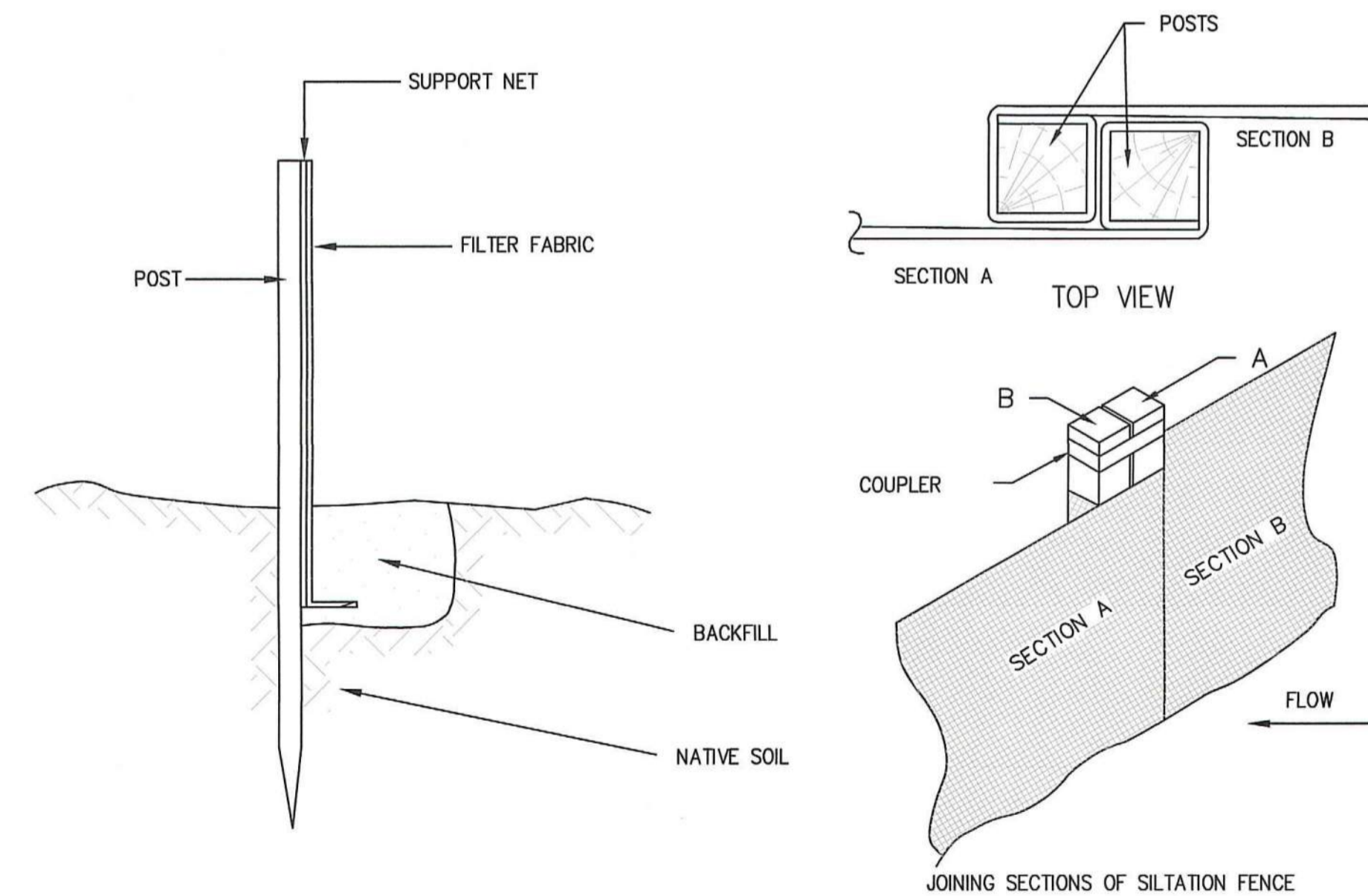
SILTSACK SEDIMENT TRAP
SCALE: N.T.S.



CONSTRUCTION NOTES:

- SILTSOCKS SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING OR LAPPING THE ADJACENT SECTIONS.
- SILTSOCKS SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN EVERY 8 LF.
- INSPECTION SHALL BE FREQUENT, AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS REQUIRED.
- SILTSOCKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS, SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

SILTSOCK DETAIL
SCALE: N.T.S.



CONSTRUCTION NOTES:

- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
- FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILTATION FENCE
SCALE: N.T.S.

NOTES:

- INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND HAY BALES HAVE BEEN REMOVED.
- GRATE TO BE PLACED OVER SILTSACK.
- SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED.

| REV | DATE | DESCRIPTION | BY | APP |
|-----|------|-------------|----|-----|
| | | | | |

MEG
MCKENZIE ENGINEERING GROUP
Assinippi Office Park
150 Longwater Drive, Suite 101
Norwell, MA 02061
P: 781.792.3900
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**SITE DEVELOPMENT PLAN
PROPOSED MEDICAL BUILDING
20 HENRY GRAF JR. ROAD
NEWBURYPORT, MASSACHUSETTS**

PROFESSIONAL ENGINEER:
BRADLEY C. MCKENZIE
CIVIL
No. 30977
STATE OF MASSACHUSETTS
REGISTERED PROFESSIONAL ENGINEER

APPLICANT:
SPORTS MEDICINE NORTH
ORTHOPEDIC SURGERY, INC.
C/O CONSERV GROUP, INC.
110 STATE ROAD
SAGAMORE BEACH, MASSACHUSETTS 02562

| | |
|--------------|----------------|
| DRAWN BY: | ESS |
| DESIGNED BY: | ESS |
| CHECKED BY: | BCM |
| APPROVED BY: | BCM |
| DATE: | MARCH 17, 2020 |
| SCALE: | |
| PROJECT NO.: | 219-180 |
| DWG. TITLE: | |

**CONSTRUCTION
DETAILS**

DWG. NO: **D-5**

NOT FOR CONSTRUCTION