

# SITE DEVELOPMENT PLANS PROPOSED RESIDENTIAL DEVELOPMENT 7 NEW DRIFTWAY SCITUATE, MASSACHUSETTS

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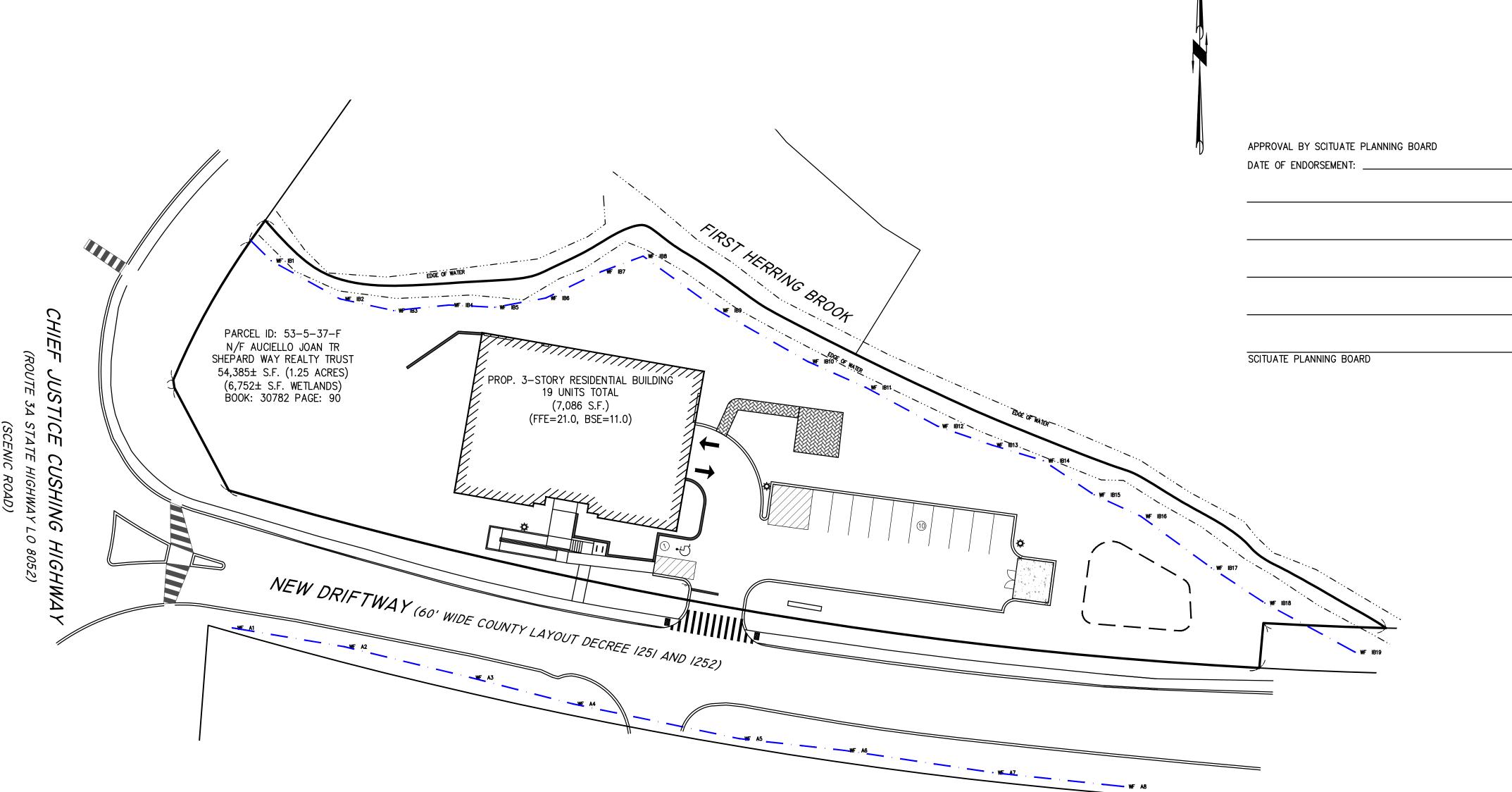
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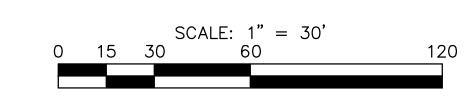


## Applicant:

DRIFT-WAY, LLC P.O. 378 TYNGSBORO, MA 01879

## Engineer/Surveyor:

MCKENZIE ENGINEERING GROUP, INC. 150 LONGWATER DRIVE SUITE 101 NORWELL, MASSACHUSETTS 02061



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M:\MEG\2018 PROJECTS\218-153 POLAK - NEW DRIFTWAY, SCITUATE\DWGS\218-153 MAIN13\_PB.DWG

CS-1

DRAWN BY: DESIGNED BY: CHECKED BY:
APPROVED BY: JULY 12, 2021 1"=30 PROJECT NO.: 218-153 DWG. TITLE: COVER SHEET DWG. No:

www.mckeng.com

PROFESSIONAL ENGINEER:

## **ABBREVIATIONS**

SMH

STA

STL

SW

TCB

TMH

TSV

TYP

UP

VCP

VERT

VGC

TRANS

SLOPED GRANITE EDGING

TRAFFIC CONTROL BOX

TELEPHONE MANHOLE

TAPPING SLEEVE, VALVE AND BOX

SEWER MANHOLE

SEWER SERVICE

TRAFFIC LIGHT

TRANSFORMER

TOP OF SLOPE

UTILITY POLE

WATER MAIN

WATER GATE

VERTICAL

VITRIFIED CLAY PIPE

VERTICAL GRANITE CURB

STATION

STEEL

SIDEWALK TELEPHONE **LEGEND** 

ABAN	ABANDONED	Existing	Proposed	Description
ACP ACR	ASBESTOS CEMENT PIPE ACCESSIBLE CURB RAMP	× 100.50	+ 100.50	SPOT ELEVATIONS
ADJ	ADJUST	_100.50_	100.50	TOP & BOTTOM ELEVATIONS
APPROX ASPH	APPROXIMATE ASPHALT	100.00	100.00	TOP & BUTTOM ELEVATIONS
ACCMP B BD	ASPHALT COATED CORRUGATED METAL PIPE BOLLARD BOUND	100.50 x	100.50 x	SPOT ELEVATIONS WITH LEADER
BLDG IT CONC	BUILDING BITUMINOUS CONCRETE	F <b>⊙</b> H	Ф	HYDRANT
BM	BENCHMARK	$\bowtie$	$\bowtie$	WATER GATE VALVE
BS CAP	BOTTOM OF SLOPE CORRUGATED ALUMINUM PIPE		<b>@</b>	WELL
CB C&C	CATCH BASIN CUT AND CAPPED	©	©	GAS GATE
CB/DH	CONC. BOUND/DRILL HOLE	E	E	ELECTRIC HANDHOLE
CB/EPLP CCB	CB/ESCUTCHEON CAPE COD BERM	— <del> </del>	_ <b>☆</b>	LIGHT POLE
CIP	CAST IRON PIPE	<b>ø</b>		UTILITY POLE
CIT <b>©</b>	CHANGE IN TYPE CENTERLINE	,		GUY POLE
CLF CO	CHAIN LINK FENCE CLEAN OUT	•	•	
CONC	CONCRETE	D	•	GUY ANCHOR
COND CMP	CONDUIT CORRUGATED METAL PIPE	(D)	(D)	DRAIN MANHOLE
CPP CS	CORRUGATED POLYETHYLENE PIPE COMBINED SEWER	S	<u>(S)</u>	SEWER MANHOLE
CSMH	COMBINED SEWER MANHOLE			CATCH BASIN
CULV ∆	CULVERT DELTA ANGLE			DOUBLE CATCH BASIN
D DCB	DRAIN DOUBLE CATCH BASIN		-	TEST PIT
DIP	DUCTILE IRON PIPE	<b>+</b>	<b>-</b>	BORING
DMH E	DRAIN MANHOLE ELECTRIC	0	0	SIGN SINGLE POST
ECC ELEV	EXTRUDED CONCRETE CURB ELEVATION			GRANITE OR CONCRETE BOUND
EMH	ELECTRIC MANHOLE		•	WETLAND FLAG
E/T/C EW EXIST	ELECTRIC, TELEPHONE, & CABLE TV END WALL EXISTING	7111111111 7 1 <u>711</u>	777777777 4,	EXISTING BUILDING
FAB FES	FIRE ALARM BOX FLARED END SECTION	<u> </u>	(////////	
FND. FND	FOUND FOUNDATION	<del>, , , , , , , , , , , , , , , , , , , </del>	<del>/////////////////////////////////////</del>	PROPOSED BUILDING
F&C	FRAME AND COVER	<u> </u>	<u> </u>	MAJOR CONTOUR
F&G G	FRAME AND GRATE GAS			
GD GG	GROUND GAS GATE			MINOR CONTOUR
GIP	GALVANIZED IRON PIPE	X	X	CHAINLINK FENCE
GP GS	GUARD POST GAS SERVICE	CTV	CTV	CABLE TV LINE
GR GRAN.	GUARD RAIL GRANITE	E/T/C	E/T/C	ELECTRIC, TELEPHONE, CABLE TV DUCTBANK
HDPE	HIGH-DENSITY POLYETHYLENE PIPE			
HH HOR	HANDHOLE HORIZONTAL	——————————————————————————————————————	OHW	OVERHEAD ELECTRIC
HP HWL	HIGH PRESSURE HEADWALL	G	G	NATURAL GAS LINE
HYD	HYDRANT	s	s	SANITARY SEWER MAIN
INV I.P.	INVERT IRON PIN	D		DRAIN PIPE
I.R. L	IRON ROD LEAD	т	т	TELEPHONE LINE
LSA LP	LANDSCAPED AREA LIGHT POLE		w	WATER MAIN
MAX	MAXIMUM	VV		
MC MCC	METAL COVER MONOLITHIC CONCRETE CURB		——— FP ———	FIRE PROTECTION LINE
MH	MANHOLE MASS. HIGHWAY BOUND			RETAINING WALL TREELINE
MHB MIN	MINIMUM	-0000000		HAYBALE & SILT FENCE
MLP NIC	METAL LIGHT POLE NOT IN CONTRACT			
NTS OHW	NOT TO SCALE OVERHEAD WIRE	· · ·		LIMIT OF INLAND BANK WETLAND RESOURCE(1)
PB	PULL BOX			100' WETLAND BUFFER ZONE
PE P	POLYETHYLENE PIPE PROPERTY LINE			
PROP PVC	PROPOSED POLYVINYL CHLORIDE PIPE			
PVMT	PAVEMENT			
PWW RCP	PAVED WATER WAY REINFORCED CONCRETE PIPE			
REM REMOD	REMOVE REMODEL			
RET	RETAIN			
ROW RR	RIGHT OF WAY RAILROAD			
R&R R&S	REMOVE AND RESET REMOVE AND STACK			
S	SEWER			
SB SB/DH	STONE BOUND STONE BOUND/DRILL HOLE			

## **GENERAL NOTES**

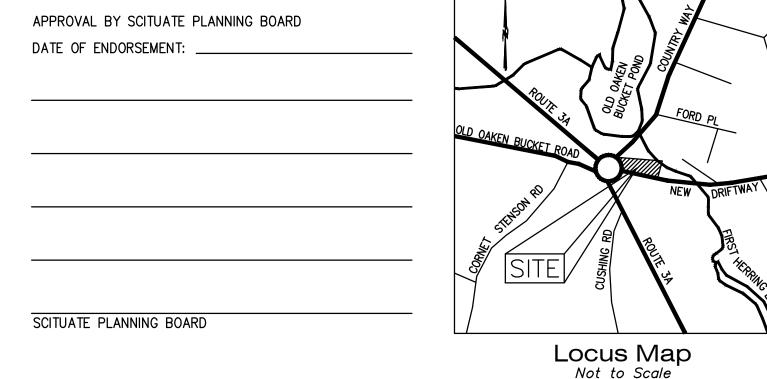
- . THIS SURVEY WAS MADE ON THE GROUND IN NOVEMBER OF 2015 BY MCKENZIE ENGINEERING GROUP, INC.
- 2. ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988. 3. A PORTION OF THE PROPERTY SHOWN HEREON IS LOCATED IN ZONE AE OF THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL Nos. 25023C0117L AND 25023C0136L, WHICH BEARS AN EFFECTIVE DATE OF JULY
- 4. THE PROPERTY SHOWN HEREON IS LOCATED IN THE VILLAGE CENTER & NEIGHBORHOOD DISTRICT,
- GREENBUSH-DRIFTWAY GATEWAY DISTRICT (GDG), GATEWAY BUSINESS SUBDISTRICT (GDG-GWB). 5. THE INLAND BANK WETLAND RESOURCE AREA WAS DELINEATED BY ENVIRONMENTAL CONSULTING & RESTORATION, LLC ON APRIL 9, 2021 AND FIELD LOCATED BY MCKENZIE ENGINEERING GROUP, INC. ON
- 6. A PORTION OF THE PROPERTY SHOWN HEREON IS LOCATED IN A DEP ZONE 2 AND TOWN OF SCITUATE WATER RESOURCE PROTECTION ZONE, FLOODPLAIN & WATERSHED PROTECTION DISTRICT AND SALTMARSH AND TIDELAND CONSERVATION DISTRICT.
- 7. 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 ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM AVAILABLE INFORMATION AND CONSTRUCTION AS THE LAND SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. BEFORE CONSTRUCTION CALL DIG SAFE SYSTEMS, INC. AT 1-888-344-7233.

#### **UTILITY NOTES:**

- 1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCHMARKS NECESSARY FOR THE WORK.
- THE CONTRACTOR SHALL COORDINATE ALL STREET WORK WITH THE SCITUATE DPW. 4. THE CONTRACTOR SHALL EXCAVATE THE TEST PITS PRIOR TO INSTALLING THE DOMESTIC WATER AND FIRE SERVICES TO VERIFY THE ELEVATIONS AND LOCATIONS OF EXISTING UTILITIES. THE CONTRACTOR SHALL
- PROVIDE THE OWNER AND ENGINEER WITH THE RESULTS PRIOR TO COMMENCING ANY WORK. 5. ALL WATER AND FIRE SERVICES SHALL BE INSTALLED WITH 5' OF COVER EXCEPT AS NOTED OR DETAILED
- 6. ALL WATER AND FIRE SERVICE APPURTENANCES, MATERIALS, METHODS OF INSTALLATION SHALL MEET OR EXCEED ALL LOCAL MUNICIPAL REQUIREMENTS.
- 7. THE FIRE SERVICE AND DOMESTIC WATER SERVICE SHALL BE ADEQUATELY PROTECTED AGAINST BACKFLOW
- (BACKFLOW PREVENTION) AT THE BUILDING. 8. THE FIRE SERVICE AND DOMESTIC WATER SERVICE SHALL BE TESTED IN ACCORDANCE WITH DEPARTMENT OF ENVIRONMENTAL PROTECTION REGULATIONS. A MINIMUM OF 2 SEPARATE WATER SAMPLES SHALL BE
- TESTED AT A STATE CERTIFIED LABORATORY. 9. A MINIMUM OF 10 FEET CLEAR HORIZONTALLY SHALL BE MAINTAINED BETWEEN SANITARY SEWER SERVICES AND WATER SERVICES. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER SERVICE THE ELEVATION OF THE CROWN OF THE SEWER SHALL BE AT LEAST 18 INCHES BELOW THE INVERT
- OF THE WATER SERVICE. ALL OTHER UTILITIES REQUIRE MINIMUM 5' SEPARATION FROM OTHER UTILITIES. 10. ALL GRAVITY SEWER PIPE SHALL BE CAST IRON UNLESS OTHERWISE NOTED.
- 11. WHERE SANITARY SEWERS CROSS WATER MAINS. THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN. IF THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. WHENEVER IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS STIPULATED ABOVE. BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE ENCASED IN CONCRETE FOR A MINIMUM DISTANCE OF 10 FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
- 12. THE LOCATIONS OF PROPOSED ELECTRIC, TELEPHONE AND COMMUNICATION (E.T.C.) SERVICES ARE APPROXIMATE. THE PROJECT ELECTRICAL ENGINEER SHALL VERIFY THESE LOCATIONS PRIOR TO THE START OF CONSTRUCTION. COORDINATE ALL E.T.C. WORK WITH THE APPROPRIATE UTILITY COMPANIES.
- 13. THE PROPOSED GAS SERVICE LOCATION IS APPROXIMATE ONLY. THE CONTRACTOR SHALL COORDINATE THE GAS SERVICE INSTALLATION WITH NATIONAL GRID.
- 14. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH SCITUATE DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS.
- 15. ALL EXISTING UTILITIES WITHIN THE SITE ARE TO BE REMOVED UNLESS OTHERWISE STATED TO REMAIN. REMOVE UTILITIES IN ACCORDANCE WITH SCITUATE DPW SPECIFICATIONS.
- 16. ALL CLEANOUTS SHALL BE FURNISHED WITH METAL FRAMES AND COVERS AT GRADE.

## CONSTRUCTION PHASE BMP OPERATION AND MAINTENANCE NOTES:

- 1. STRUCTURAL PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE SILT SOCK EROSION CONTROL BARRIERS, STABILIZED CONSTRUCTION ENTRANCES, CONCRETE WASH STATIONS, STOCKPILE AREAS, AND INLET
- 2. STABILIZATION PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE TEMPORARY SEEDING, GEOTEXTILES (JUTE MESH), MULCHING, AND PERMANENT SEEDING.
- 3. OPERATOR PERSONNEL AND/OR ITS CONSULTANTS MUST INSPECT THE CONSTRUCTION SITE AT LEAST ONCE EVERY 7 CALENDAR DAYS OR EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT  $rac{1}{4}$ INCH OR GREATER. THE INSPECTOR SHOULD REVIEW THE EROSION AND SEDIMENT CONTROLS WITH RESPECT
- A. WHETHER OR NOT THE BMP WAS INSTALLED/PERFORMED CORRECTLY. B. WHETHER OR NOT THERE HAS BEEN DAMAGE TO THE BMP SINCE IT WAS INSTALLED OR PERFORMED.
- C. WHAT SHOULD BE DONE TO CORRECT ANY PROBLEMS WITH THE BMP. 4. THE INSPECTOR SHALL COMPLETE THE INSPECTION SCHEDULE AND EVALUATION CHECKLIST FOR FINDINGS
- AND SHOULD REQUEST THE REQUIRED MAINTENANCE OR REPAIR.
- 5. ALL SLOPES EXCEEDING 15% RESULTING FROM SITE GRADING SHALL BE BOTH COVERED WITH FOUR INCHES OF TOPSOIL AND PLANTED WITH A VEGETATED COVER SUFFICIENT TO PREVENT EROSION.



<u>SCITUATE NEW WATER MAIN TESTING NOTES:</u>

- . ALL TESTING SHALL BE PERFORMED WITH A WATER DIVISION EMPLOYEE OR THEIR REPRESENTATIVE. CHLORINATION WHIP SHALL BE 1' FROM TAP CONNECTION.
- SAMPLE WHIP SHOULD BE AT END OF MAIN OR BEFORE LAST HYDRANT.
- AFTER PRESSURE TESTING AND CHLORINATION IS COMPLETED, SAMPLES SHALL BE TAKEN FROM THE FIRE SERVICE AND DOMESTIC WATER SERVICE AND SHALL BE TESTED AT 150 PSI FOR A MINIMUM OF 1 HOURS. THE CONTRACTOR IS REQUIRED TO NOTIFY THE SCITUATE DEPARTMENT OF PUBLIC WORKS AND SCITUATE
- WATER DIVISION AT LEAST 24 HOURS PRIOR TO THE TESTING. 5. CHLORINATE MAIN >50 MG/L.
- 6. FLUSH CHLORINE OFF AFTER 24 HOURS. RESIDUAL MUST BE >25 MG/L BEFORE FLUSHING. 7. 2 SAMPLES MUST BE TAKEN FOR ALL MAINS AFTER 16-24 HOURS OF REST.

CHLORINE RESIDUAL MUST BE LESS THAN SYSTEM RESIDUAL. ADDITIONAL SAMPLE SETS FOR EVERY ADDITIONAL 1000' OF MAIN.

- 8. TAKE 2ND SAMPLE >16 HOURS FROM 1ST SAMPLE TIME.
- 9. SAMPLE TESTING SHALL INCLUDE COLIFORM & HPC.
- 10. CONTRACTOR IS RESPONSIBLE FOR TRANSPORTING SAMPLES TO CERTIFIED LAB.
- 11. RESULTS ON DEP FORMS SHALL BE SENT TO:

EMAIL- SANDERSON@SCITUATEMA.GOV MCLOUD@SCITUATEMA.GOV

OR

MAIL- SCITUATE WATER DIVISION

4 OLD OAKEN BUCKET RD. SCITUATE, MA. 02066

INLAND BANK STABILIZATION NOTES

A PORTION OF THE SLOPE OF THE INLAND BANK IS ERODING IN THE VICINITY OF INLAND BANK FLAGS #6 TO #8 AS IDENTIFIED BY ART ALLEN OF ECOTEC, INC. SLOPE STABILIZATION IS PROPOSED TO IMPROVE THE STABILITY OF THIS RESOURCE AREA AS A PROTECTIVE MEASURE PRIOR TO THE START OF REDEVELOPMENT ACTIVITIES AT THE SITE. THE INLAND BANK STABILIZATION ACTIVITIES ARE PROPOSED AS FOLLOWS:

- 1. ARRANGE THE EXISTING BOULDERS ALONG THE TOE OF THE INLAND BANK AS A FOUNDATION TO SUPPORT
- THE STABILIZATION WORK. 2. COVER THE ERODED AREA WITH A LANDSCAPE FABRIC TO SUPPORT NEW SOIL TO BE BACKFILLED INTO THE
- AREA. THE LANDSCAPE FABRIC WILL NEED TO BE STAKED INTO THE EARTH BANK. 3. ALONG THE TOP OF THE ALIGNED BOULDERS, INSTALL A 12 INCH COIR LOG. THE COIR LOG WILL BE PLACED ALONG THE STREAM SIDE (DOWNGRADIENT SIDE) OF THE LANDSCAPE FABRIC. THE LENGTH OF THE ERODED SLOPE IS APPROXIMATELY 40 FEET SO FOUR 10 FOOT LONG COIR LOGS WILL BE NEEDED ALONG THE TOP OF THE ALIGNED STONES. WOODEN STAKES (2 INCH BY 2 INCH MINIMUM) WILL BE USED TO HOLD THE COIR LOG IN PLACE, WHICH WILL BE POUNDED STAKED INTO THE EARTH BANKING. NATURAL FIBER ROPE SHOULD BE WOVEN THROUGH THE JUTE NETTING OF THE COIR TO TIE EACH COIR TOGETHER AS WELL AS TO SECURE THE COIR LOGS TO THE WOODEN STAKES.
- 4. BACK FILL THE AREA WITH CLEAN LOAM TO THE TOP OF THE COIR LOG. UPON THE PLACEMENT OF SOIL. THE AREA SHOULD BE COVERED WITH JUTE NETTING THAT IS STAKED INTO PLACE. JUTE NETTING IS NECESSARY DUE TO THE SLOPE OF THE RESTORED BANK.
- 5. SEED THE AREA WITH A NATIVE WETLAND SEED MIX CONSISTING OF PA NEW ENGLAND PROVINCE RIPARIAN
- MIX AVAILABLE FROM ERNST CONSERVATION SEEDS, INC. (ERNMX-253)
- 6. PLUG THE AREA WITH NATIVE SHRUB TUBELINGS. WHICH CAN BE PLANTING INTO THE JUTE NETTING. THE NATIVE TUBELINGS ARE AVAILABLE FROM PINELANDS NURSERY AND WOULD CONSIST OF 1 TRAY OF SILKY DOGWOOD (CORNUS AMOMUM) TUBELINGS, 72 PLANTS PER TRAY. SILK DOGWOOD TUBELINGS WILL GROW INTO SHRUBS THAT ARE TYPICALLY FOUND ALONG STREAM BEDS. THESE 72 TUBELINGS SHOULD BE PLANTED AT APPROXIMATELY 2 FEET ON CENTER TO COVER THE RESTORED SLOPE.

IM C K E N Z I E ENGINEERING GROUP

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

PROFESSIONAL ENGINEER:

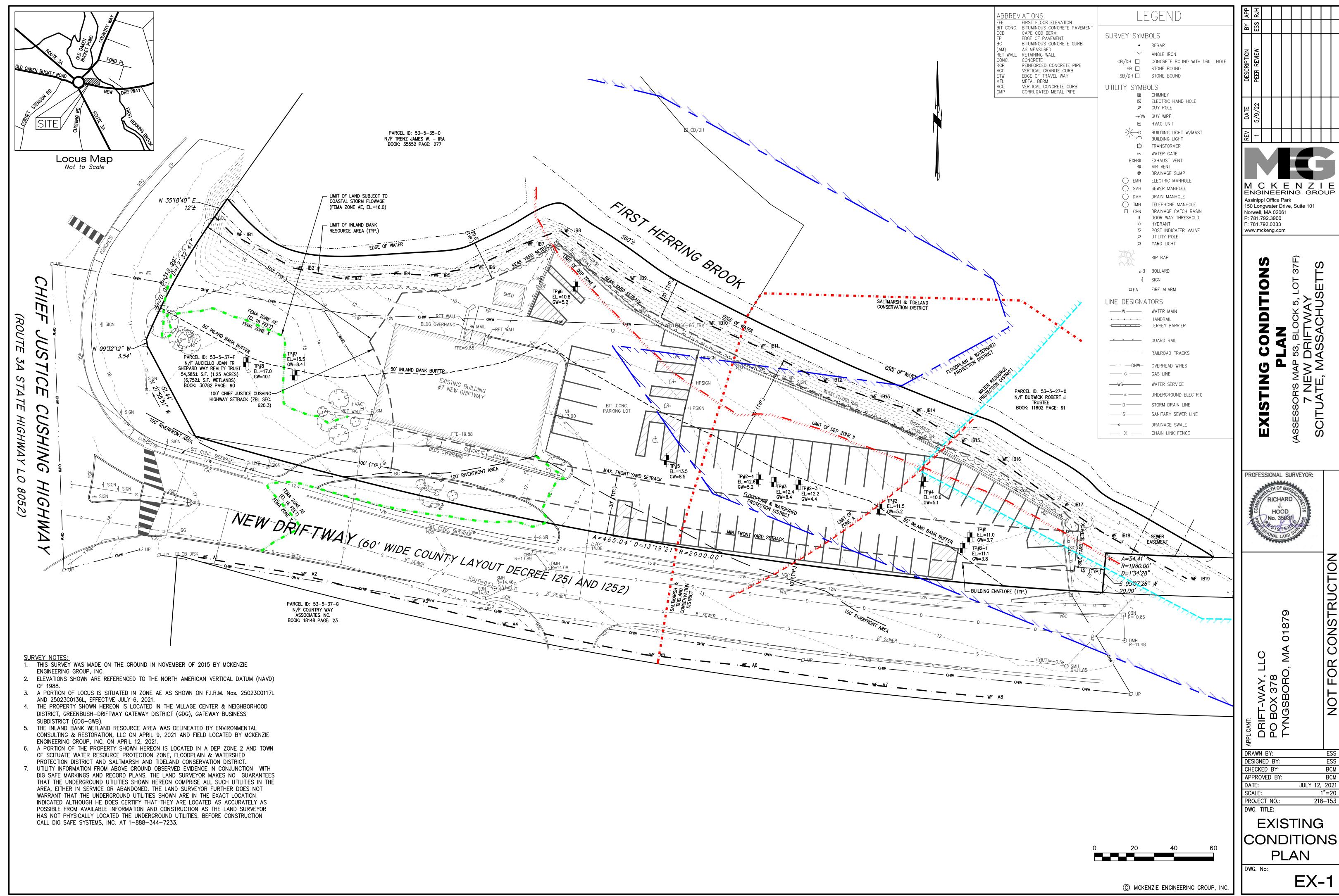
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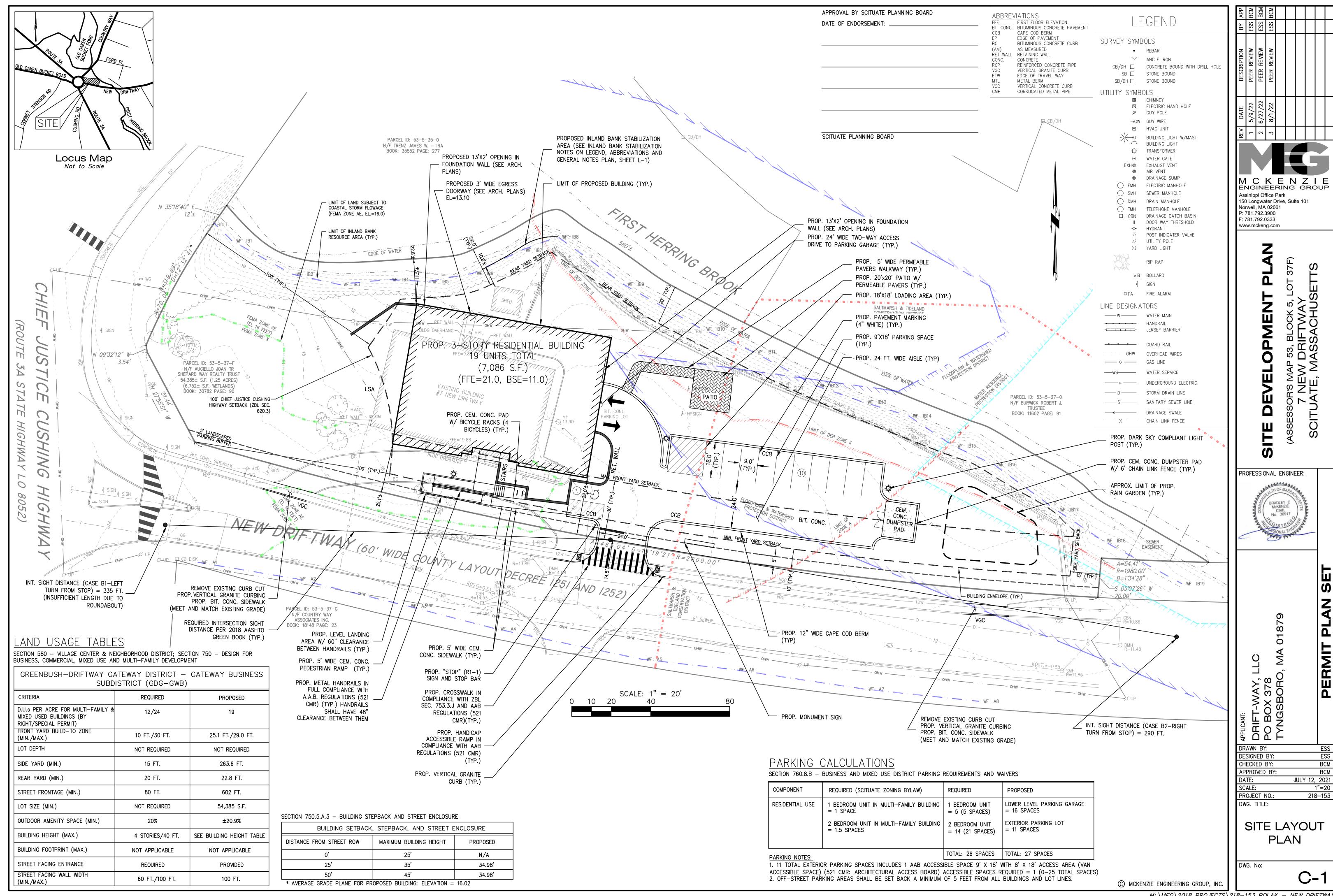
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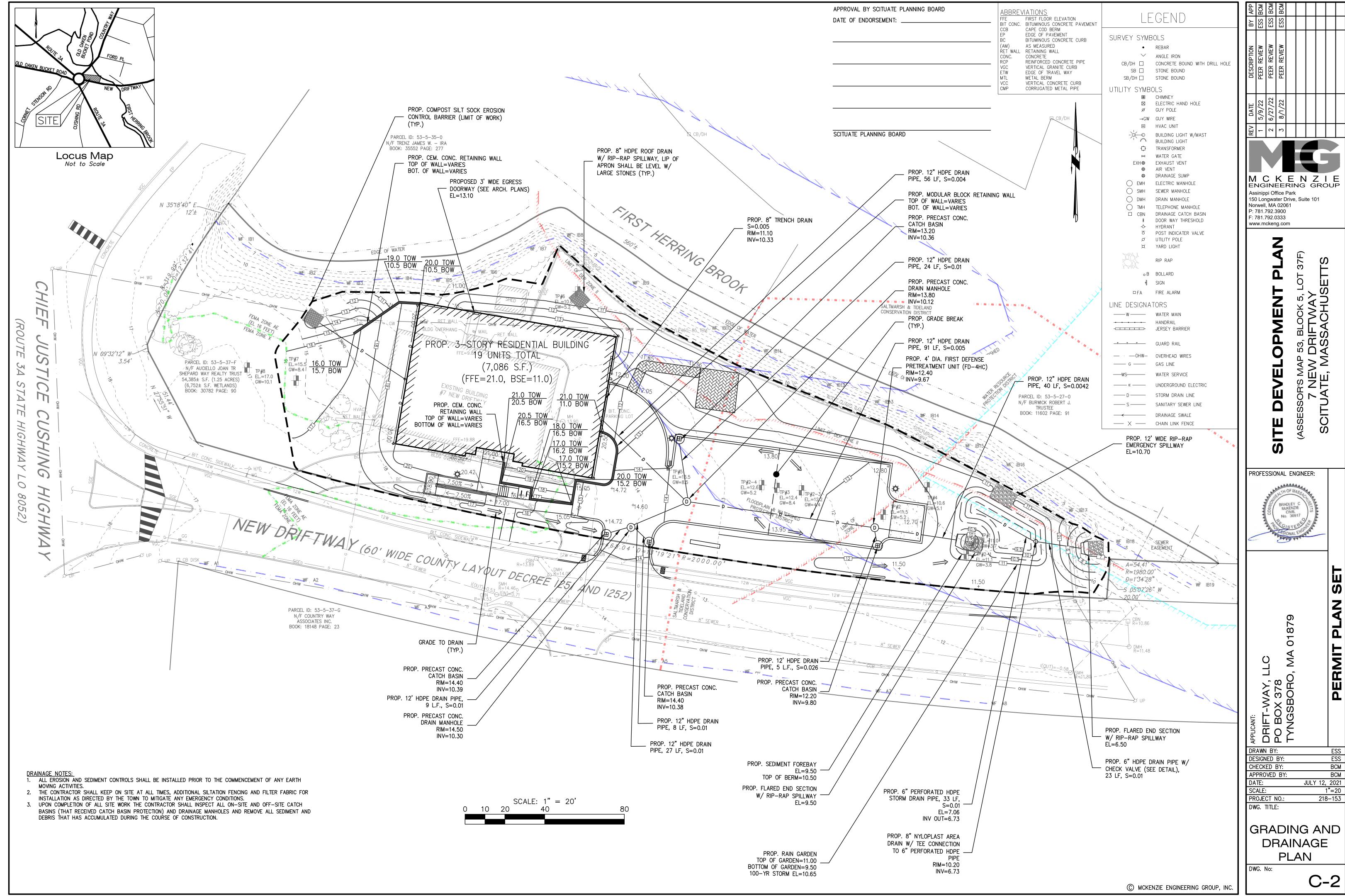
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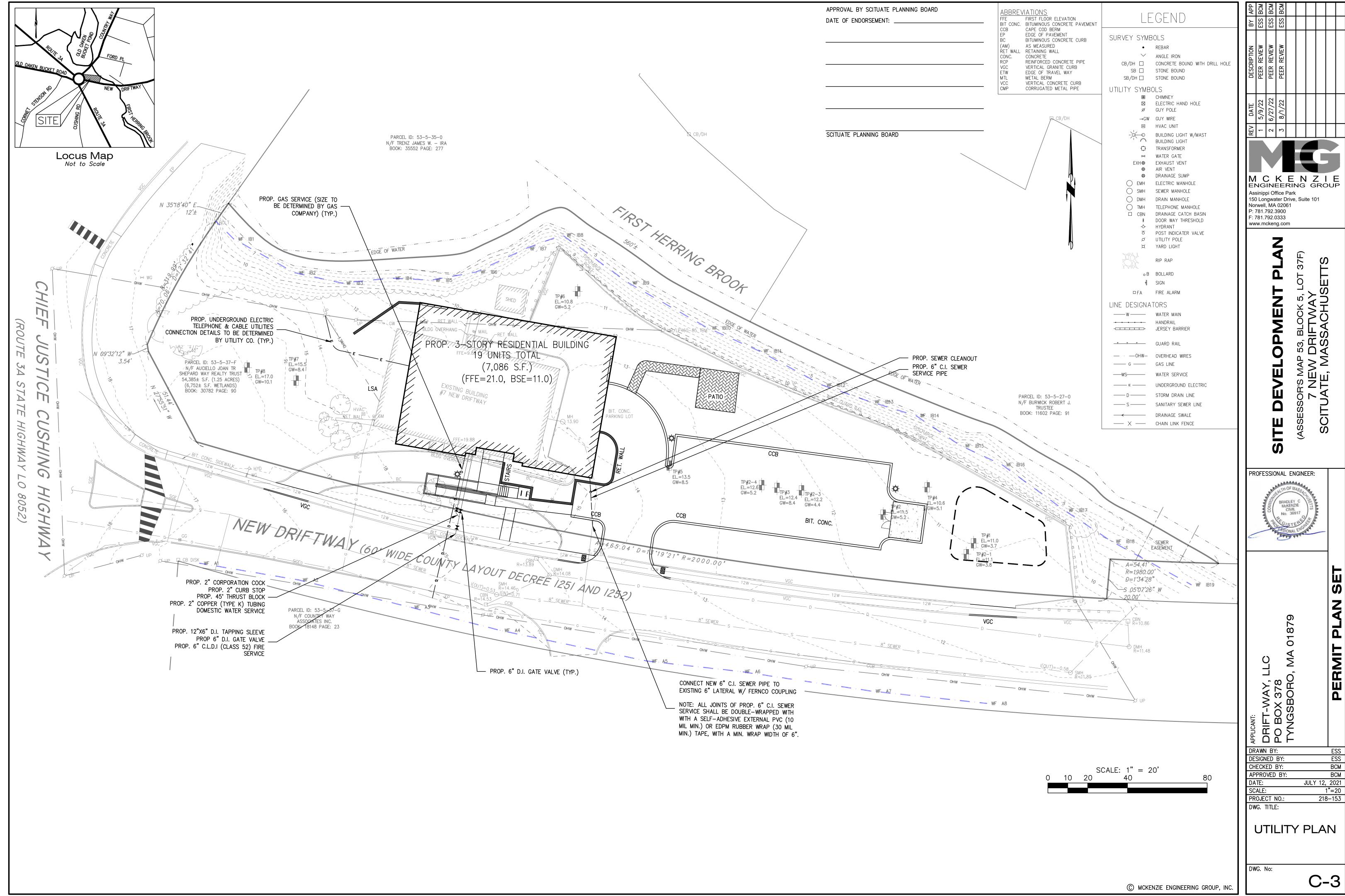
LEGEND, **ABBREVIATIONS** AND GENERAL NOTES

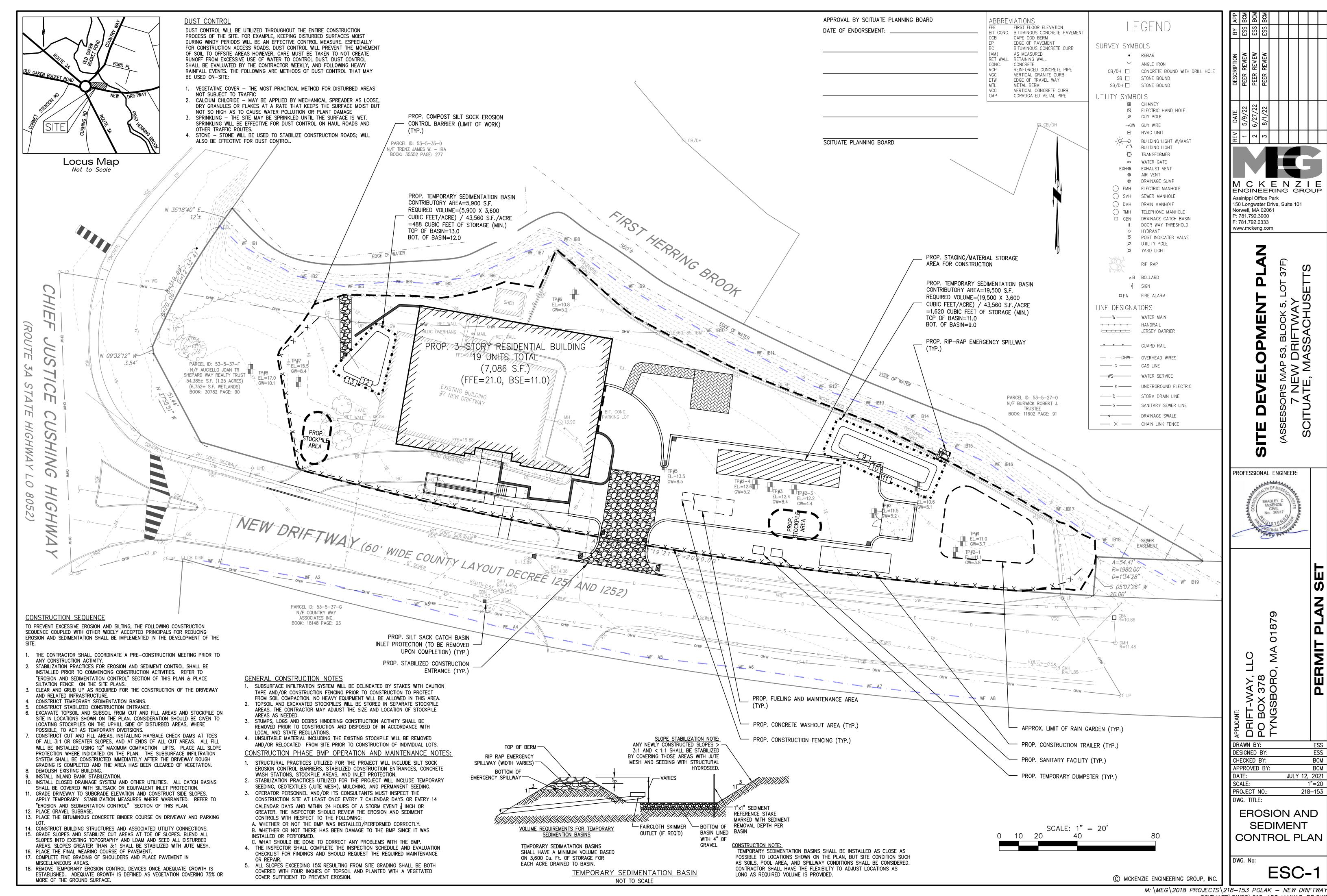
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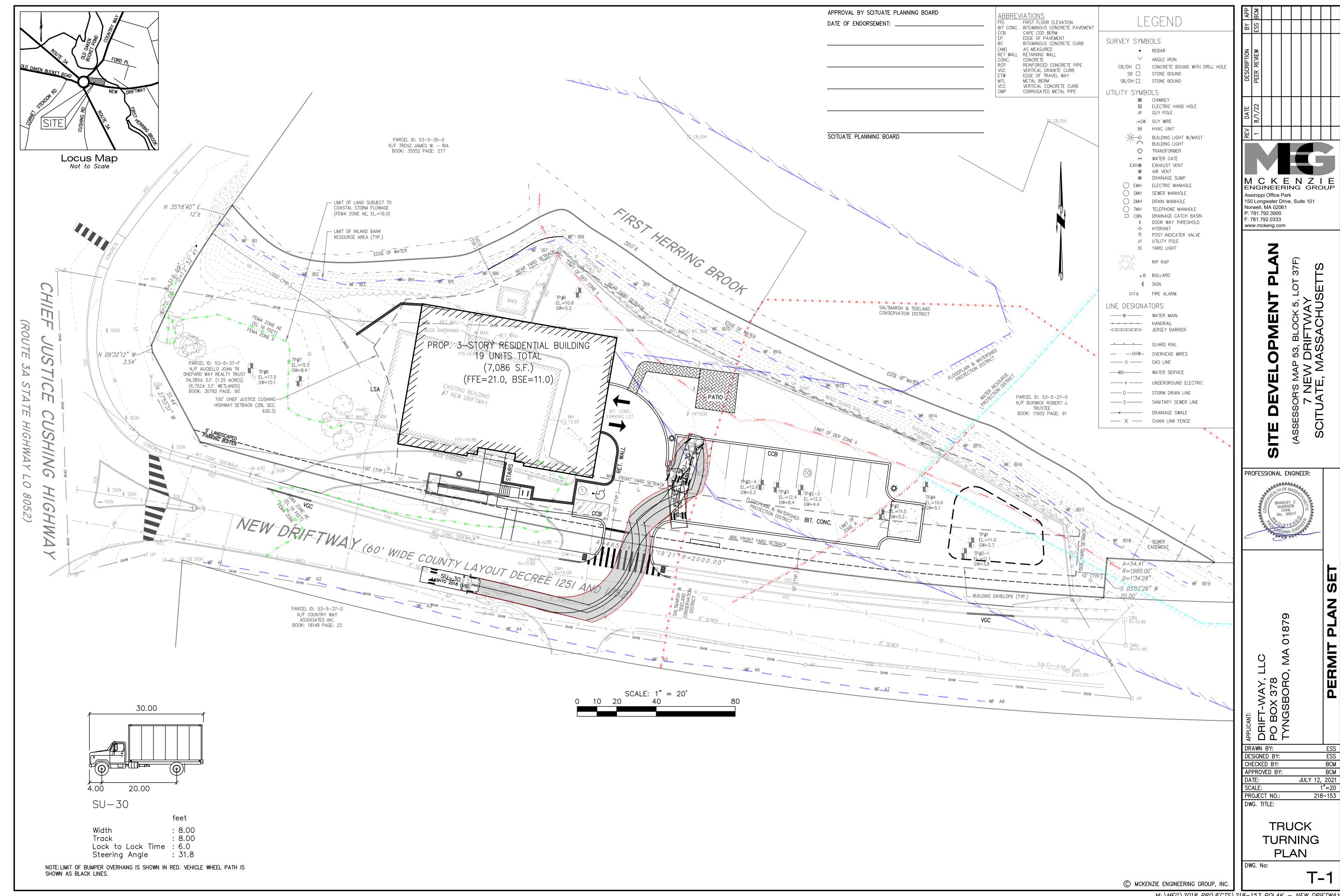


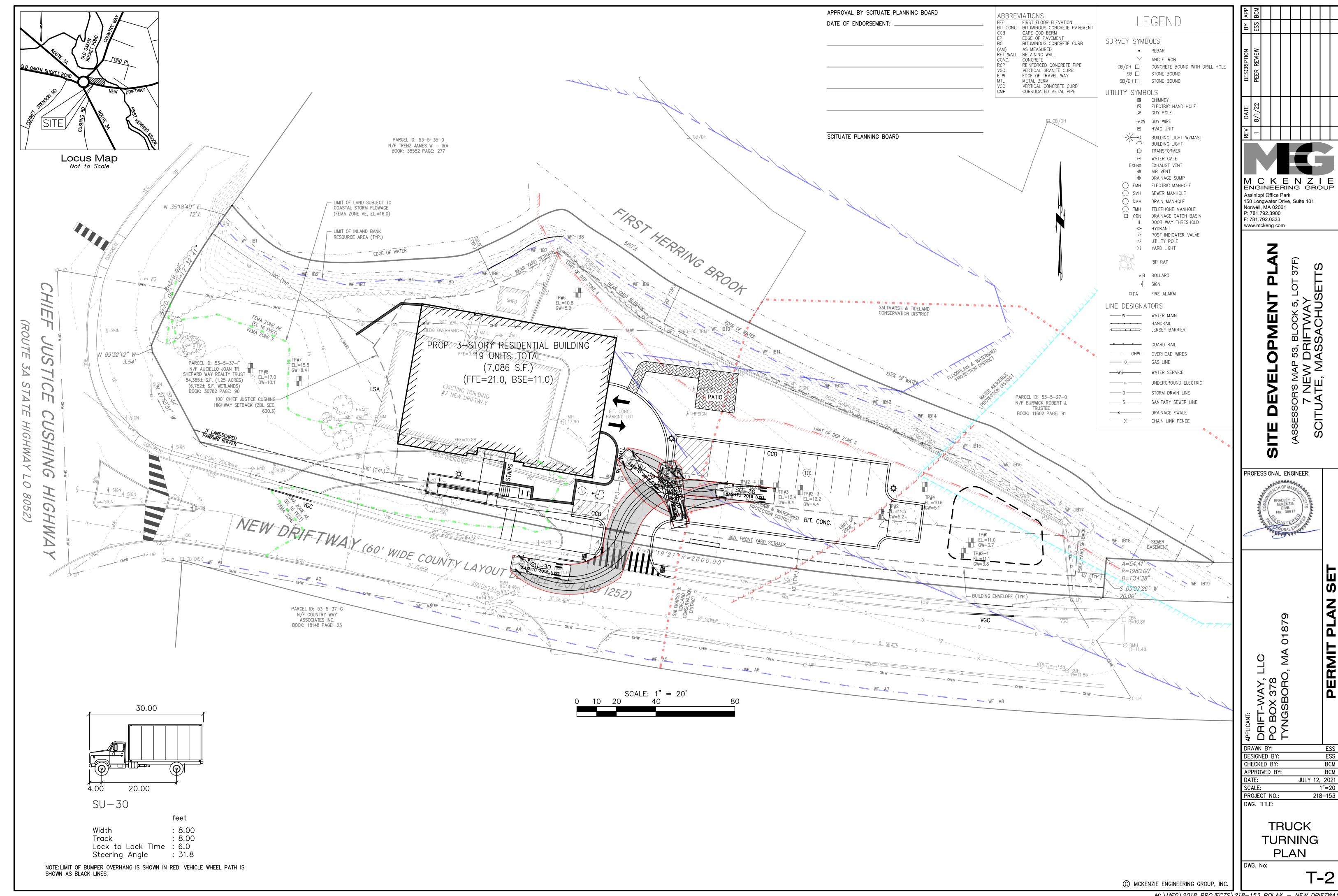


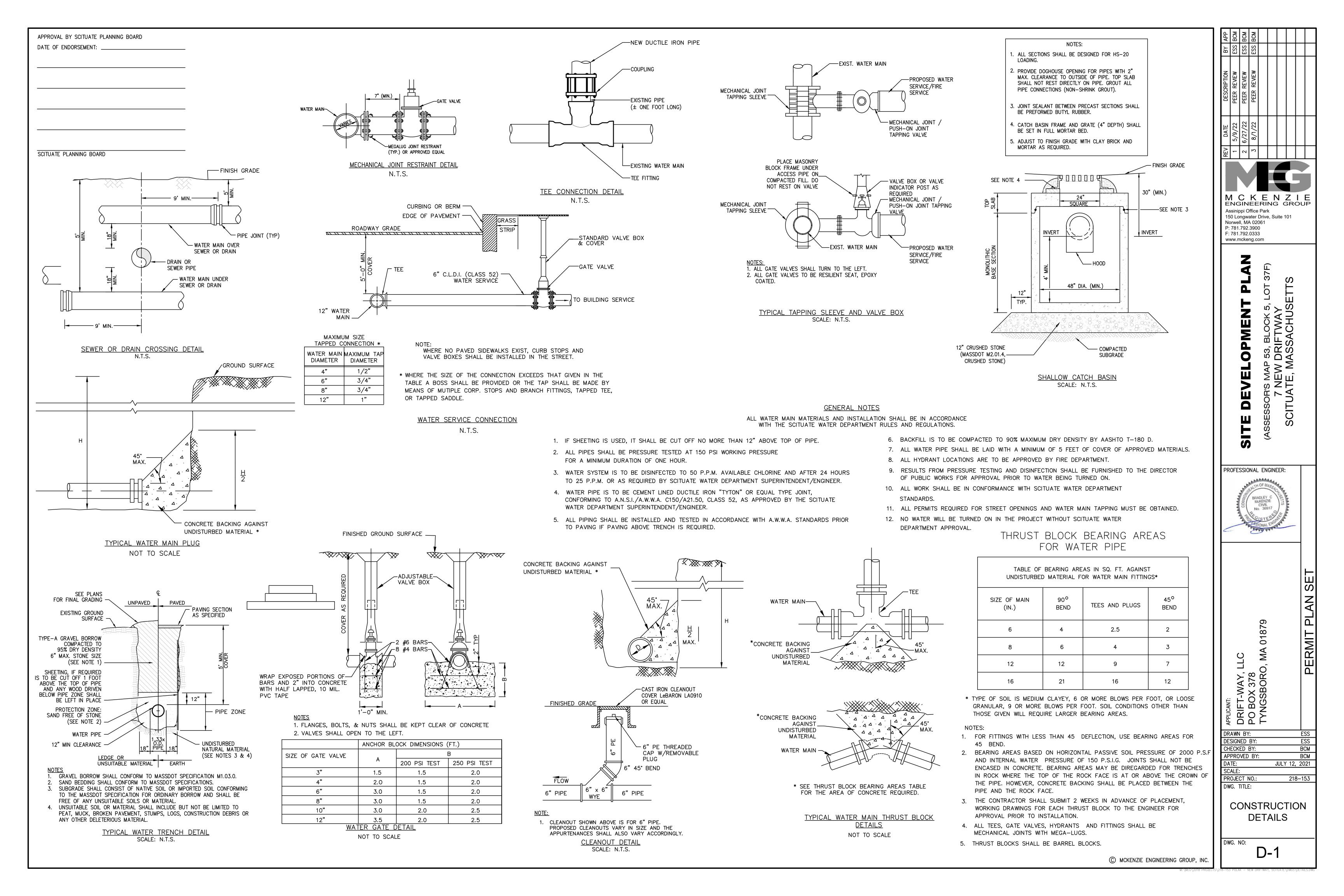


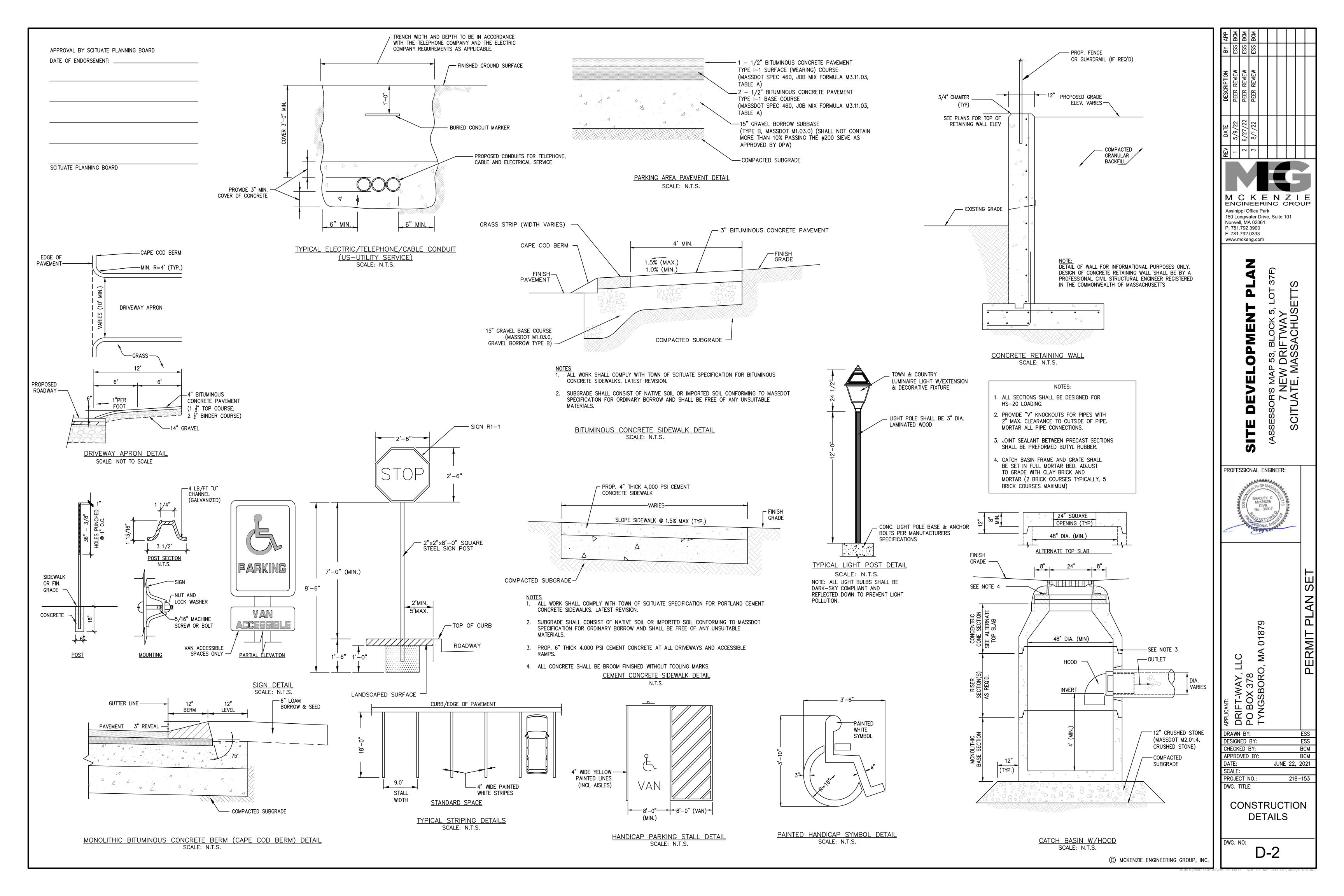


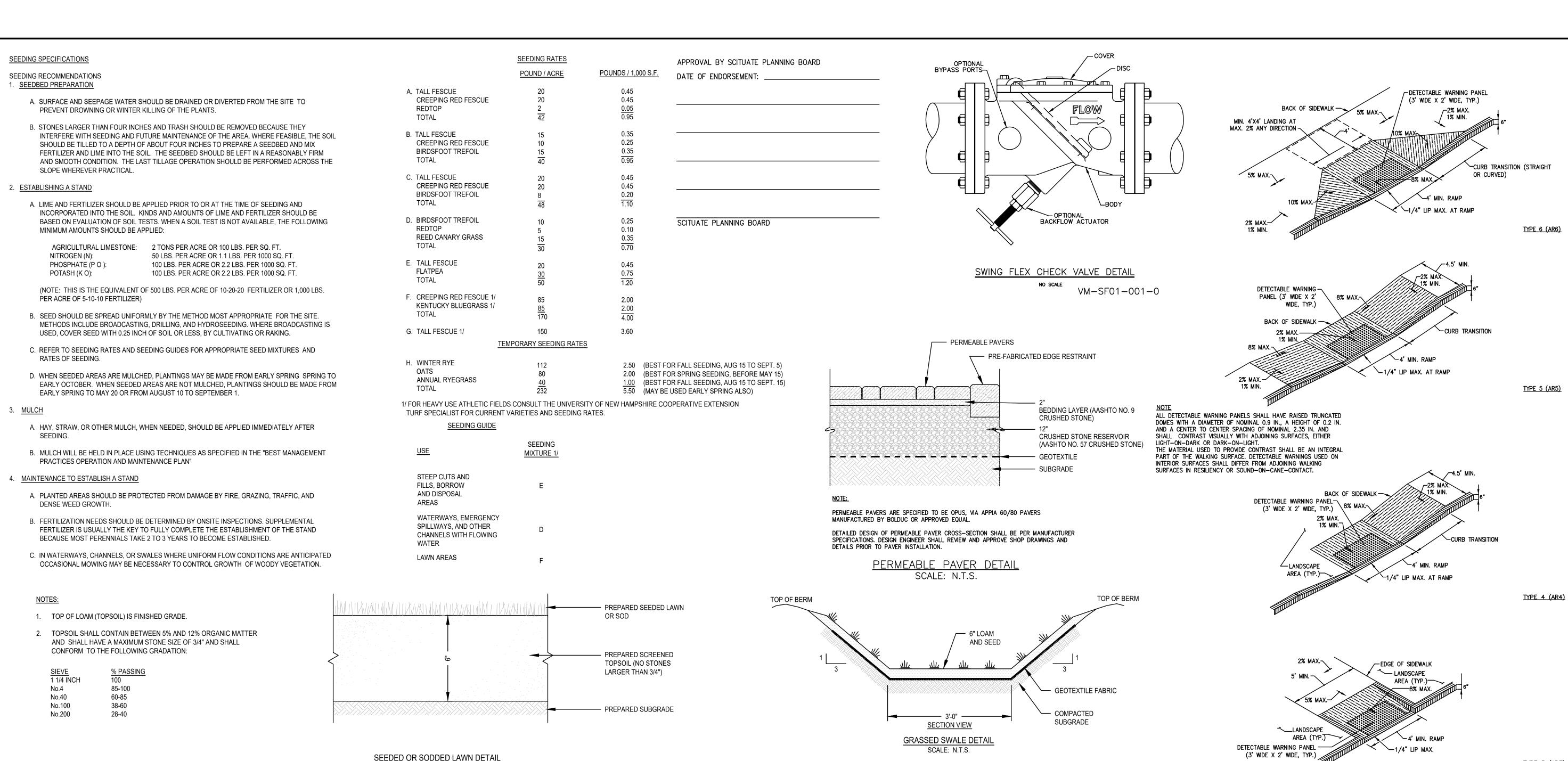




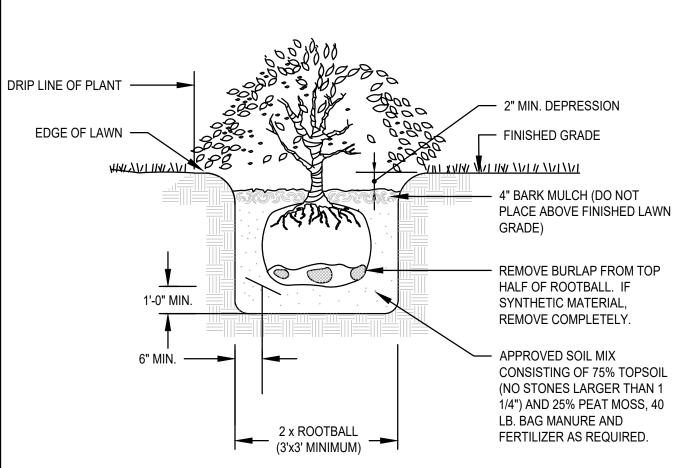




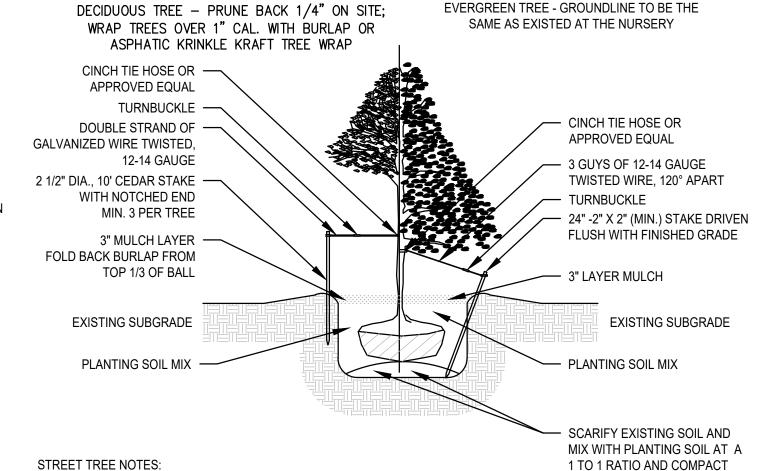




SEEDED OR SODDED LAWN DETAIL SCALE: N.T.S.



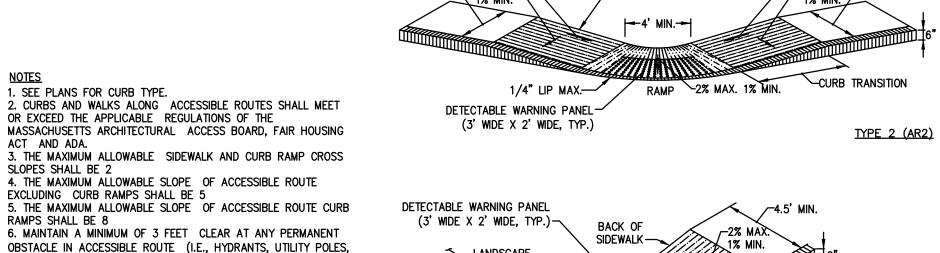
TYPICAL SHRUB PLANTING DETAIL SCALE: N.T.S.



1. NEW TREES SHALL BE NURSERY GROWN AND COMPLY WITH THE ASSOCIATION OF AMERICAN NURSRIES SPECIFICATIONS AND BE AT LEAST 3 INCHES IN CALIPER.

2, THE PRESERVATION OF EXISTING TREES AND THE VARIETIES OF NEW TREES FOR PLANTING SHALL BE SUBJECT TO THE APPROVAL OF THE PLANNING BOARD WHICH SHALL BE GUIDED BY THE RECOMMENDATION OF THE TOWN'S DIRECTOR OF LANDS AND NATURAL RESOURCES AS TO THE NUMBER, LOCATION, CONDITION AND SPECIES OF SUCH TREES AND UNDER APPENDIX III 0 DETAIL B.

> DECIDUOUS AND EVERGREEN TREE PLANTING DETAIL SCALE: N.T.S.



\_\_LANDSCAPE AREA (TYP.) TRANSITION CURB TRANSITION -MIN. 4'X4' LANDING AT MAX. 2% IN ANY DIRECTION

SCALE: N.T.S.

ACCESSIBLE CURB RAMPS

TREE WELLS, SIGNS ETC.)
7. GRADE BASE OF RAMP TO PREVENT PONDING.

8. RAMP CONSTRUCTION SHALL CONFORM TO TYPICAL SIDEWALK

9. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH

10. ALL CURBING AT RAMPS SHALL BE VERTICAL CURBING SET

11. ALL RAMPS SHALL BE CEMENT CONCRETE OR BITUMINOUS

(EXCLUDING CURBING) A 5'X5' PASSING AREA SHALL BE

PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.

CONCRETE WITH ROUGHENED NON-SLIP SURFACE.

FLUSH WHERE IT ABUTS ROADWAY.

0 PROFESSIONAL ENGINEER: DRAWN BY:

© MCKENZIE ENGINEERING GROUP, INC

<u>TYPE 1 (AR1)</u>

<u>TYPE 3 (AR3)</u>

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

DESIGNED BY:

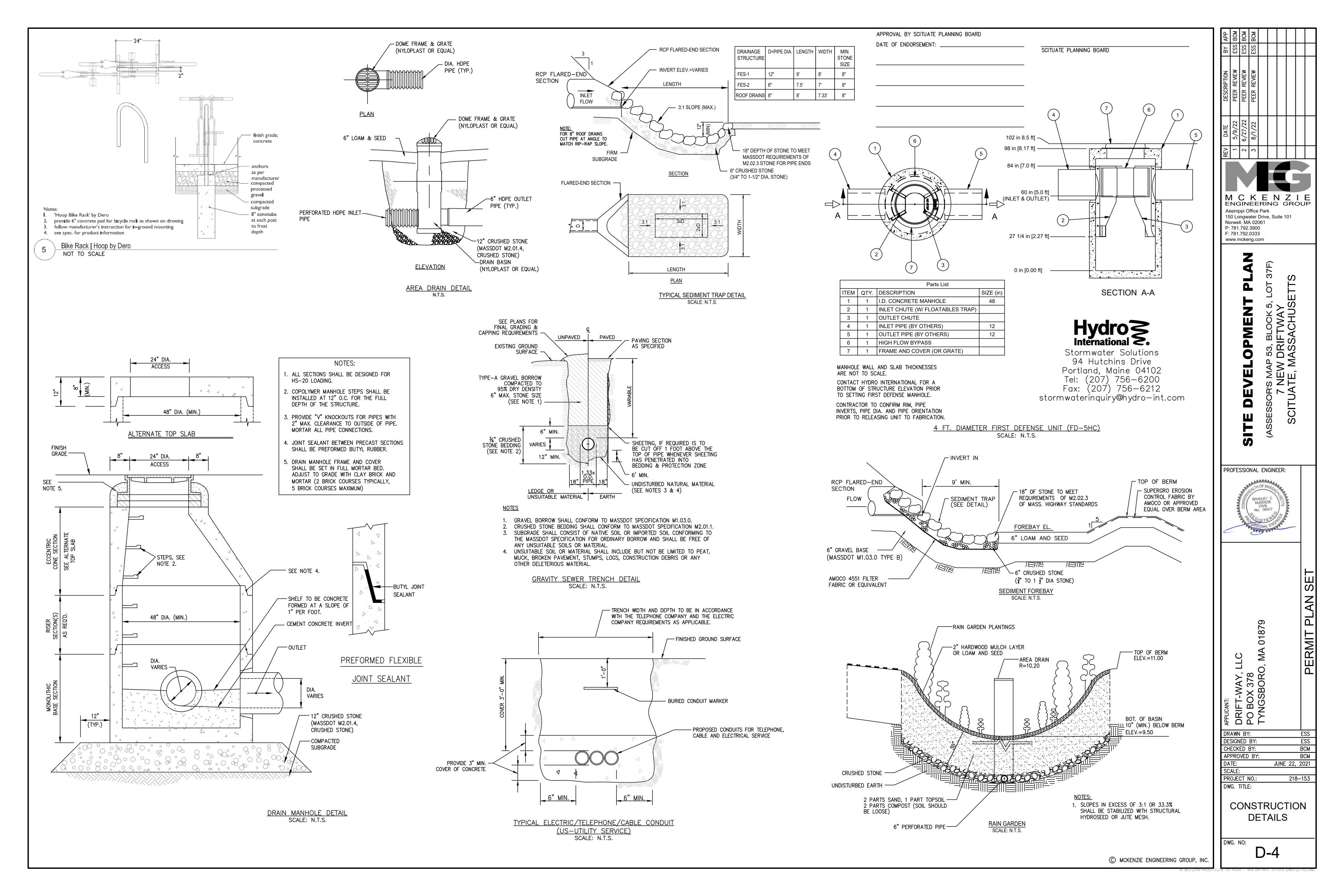
CHECKED BY: BCM APPROVED BY: BCM JUNE 22, 2021 SCALE: 218-153

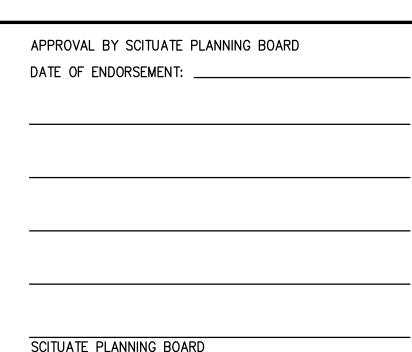
PROJECT NO.: DWG. TITLE:

> CONSTRUCTION **DETAILS**

DWG. NO:

D-3





## **EROSION AND SEDIMENTATION CONTROL**

- WIDELY ACCEPTED PRACTICES FOR REDUCING EROSION AND SEDIMENTATION WILL BE EMPLOYED IN THE DEVELOPMENT OF THIS SITE.
- 2. 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.
- 3. STEEP SLOPES, WHERE POSSIBLE, WILL NOT BE DISTURBED.
- 4. NATURAL WATERWAYS WILL BE PRESERVED AND PROTECTED, AND EXISTING VEGETATION WILL BE RETAINED AND PROTECTED TO THE EXTENT POSSIBLE.
- 5. THE ROADWAY CONFORMS TO EXISTING LAND CONTOURS WHERE PRACTICAL.
- 6. THE CONTRACTOR SHALL MINIMIZE THE AREA OF DISTURBED LAND TO THE EXTENT FEASIBLE.
- 7. 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.
- 8. TEMPORARY EROSION CONTROL MEASURES WILL INCLUDE, BUT NOT BE LIMITED TO, STRAWBALE CHECK DAMS, SEDIMENT FOREBAYS, STABILIZED CONSTRUCTION ENTRANCES, FILTER FABRIC SILT FENCES, SEEDING AND MULCHING, AND SEEDED FILTER STRIPS.
- 9. 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.
- 10. 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.
- 11. 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.
- 12. 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.
- 13. STABILIZATION PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE TEMPORARY SEEDING, GEOTEXTILES (JUTE MESTH), MULCHING, AND PERMANANT SEEDING.

## CONSTRUCTION PHASE BMP OPERATION & MAINTENANCE:

STRUCTURAL PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE SILT SOCK EROSION CONTROL BARRIERS, STABILIZED CONSTRUCTION ENTRANCES, TEMPORARY DIVERSION SWALES WITH CHECK DAMS, TEMPORARY SEDIMENT BASINS, AND INLET PROTECTION.

STABILIZATION PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE TEMPORARY SEEDING, GEOTEXTILES (JUTE MESH), MULCHING, AND PERMANENT SEEDING.

OPERATOR PERSONNEL AND/OR ITS CONSULTANTS MUST INSPECT THE CONSTRUCTION SITE AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 1/2 INCH OR GREATER.

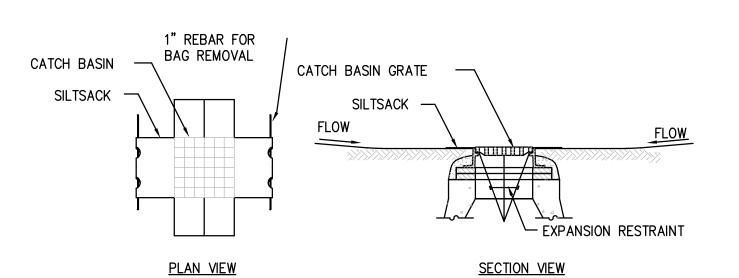
THE INSPECTOR SHOULD REVIEW THE EROSION AND SEDIMENT CONTROLS WITH RESPECT TO THE FOLLOWING:

- A. WHETHER OR NOT THE BMP WAS INSTALLED/PERFORMED CORRECTLY. B. WHETHER OR NOT THERE HAS BEEN DAMAGE TO THE BMP SINCE IT WAS
- INSTALLED OR PERFORMED.
- C. WHAT SHOULD BE DONE TO CORRECT ANY PROBLEMS WITH THE BMP.

THE INSPECTOR SHALL COMPLETE THE INSPECTION SCHEDULE AND EVALUATION CHECKLIST FOR FINDINGS AND SHOULD REQUEST THE REQUIRED MAINTENANCE OR REPAIR. THE CHECKLIST IS PROVIDED WITHIN THE OPERATION AND MAINTENANCE PLAN.

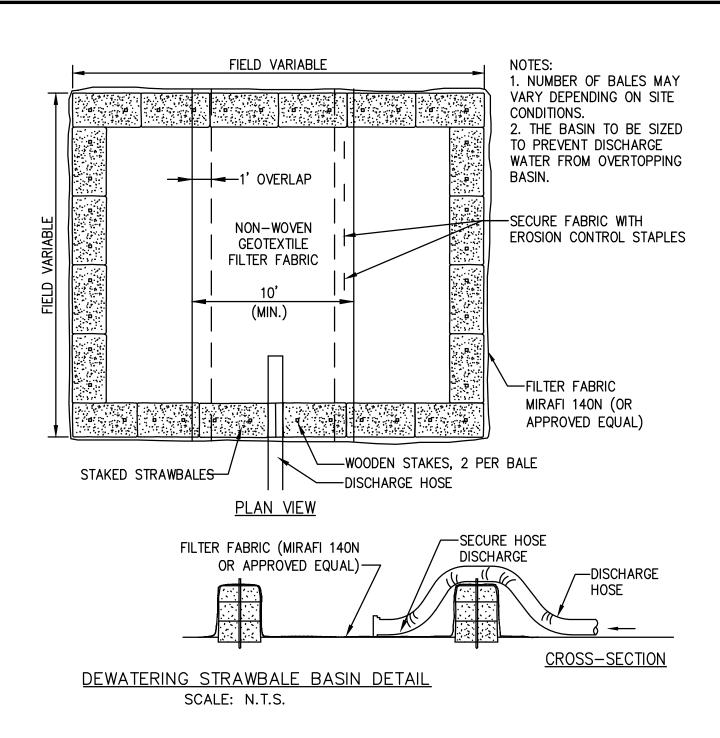
THE TEMPORARY SEDIMENT BASINS SHALL BE INSPECTED AND CLEANED IF REQUIRED PRIOR TO ANY PREDICTED LARGE STORM EVENT.

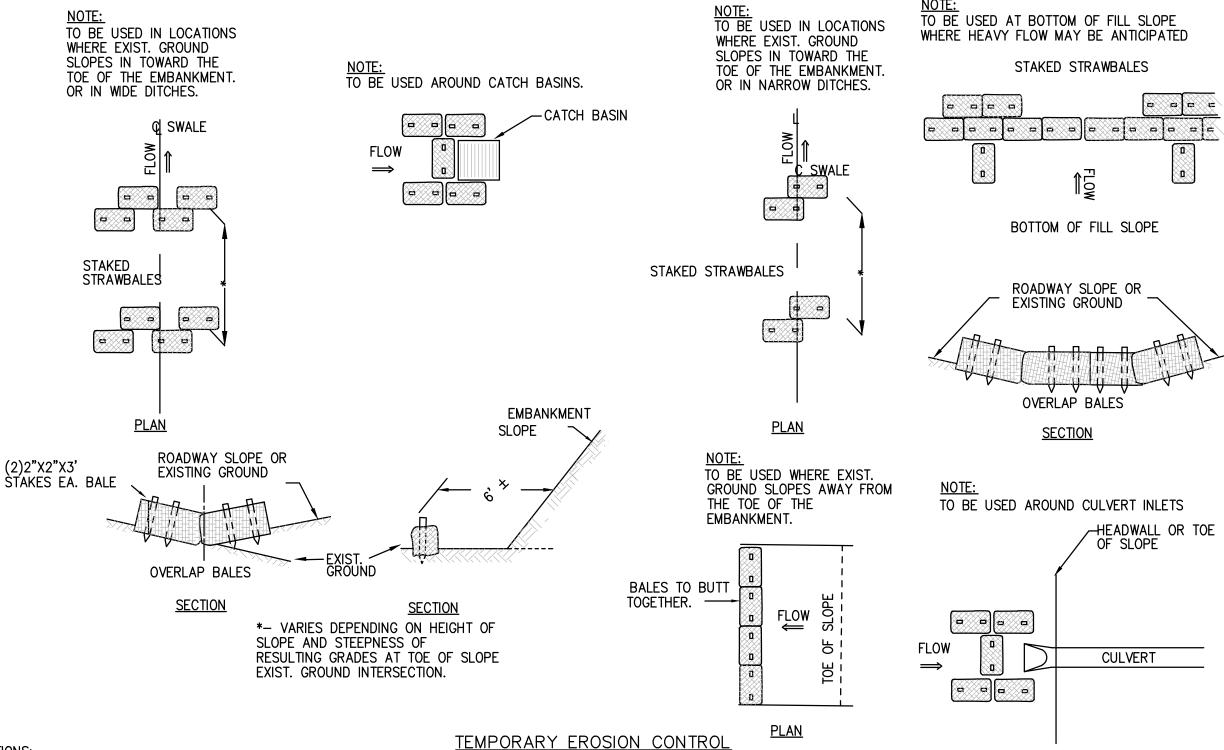
ALL SLOPES EXCEEDING 15% RESULTING FROM SITE GRADING SHALL BE BOTH COVERED WITH FOUR INCHES OF TOPSOIL AND PLANTED WITH A VEGETATED COVER SUFFICIENT TO PREVENT EROSION.



- SILT SACK SEDIMENT TRAP CONTRUCTION NOTES:
- 1. INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND STRAWBALES HAVE BEEN REMOVED.
- 2. GRATE TO BE PLACED OVER SILTSACK.
- 3. 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.





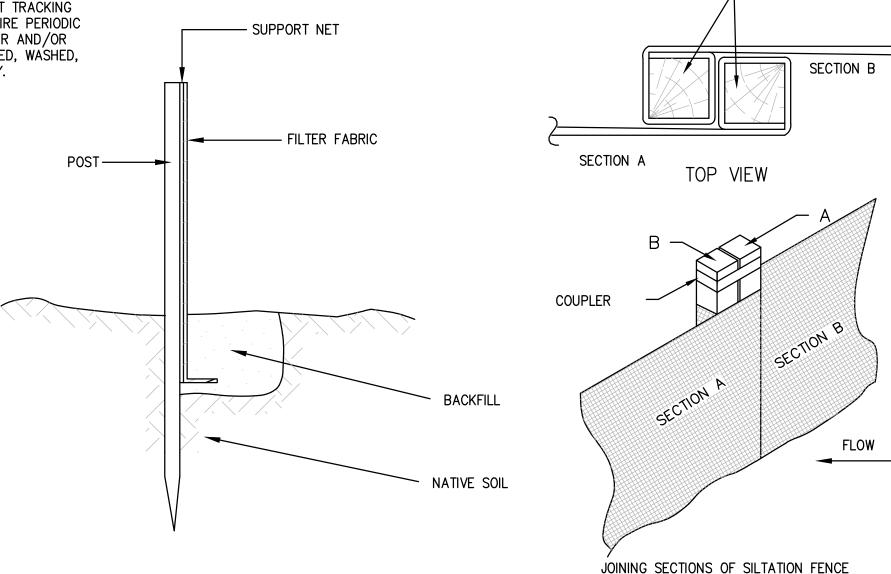
SCALE: N.T.S.

## <u>50' MINIMUN</u> EXISTING PAVEMENT GEOTEXTILE FILTER FABRIC <u>PROFILE</u> <u>50' MINIMUM</u> TO 2" COARSE AGGREGATE

<u>PLAN VIEW</u>

#### (SCE) CONSTRUCTION SPECIFICATIONS:

- 1. STONE FOR A STABILIZATION CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE.
- 2. 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.
- 3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
- 4. 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.
- 5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
- 6. 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.
- 7. 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.

SECTION VIEW

### 18"-24" DIAM. BIODEGRADABLE SILT SOCK \_FILLED WITH WOOD CHIP COMPOST BLEND 18"-24" DIAM. 1"x1" STAKES EVERY BIODEGRADABLE SILT SOCK DISTURBED AREA FILLED WITH WOOD CHIP WATER FLOW COMPOST BLEND PROTECTED RESOURCE TRAPPED SEDIMENT 1"x1" STAKES EVERY DISTURBED AREA PROTECTED RESOURCE

## CONSTRUCTION NOTES:

PLAN VIEW

- 1) SILT SOCKS SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY
- ABUTTING OR LAPPING THE ADJACENT SECTIONS. 2) SILT SOCKS SHALL BE SECURELY ANCHORED IN PLACE BY
- STAKES OR RE-BARS DRIVEN EVERY 8 LF.
- 3) INSPECTION SHALL BE FREQUENT, AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS REQUIRED.
- 4) SILT SOCKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS, SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

#### SILT SOCK DETAIL SCALE: N.T.S.

## **CONSTRUCTION NOTES:**

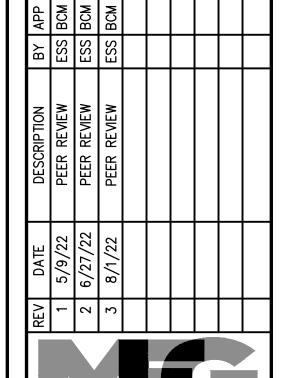
- 1) WOVEN WIRE FENCE TO BE FASTENED SECURELY TO
- FENCE POSTS WITH WIRE TIES OR STAPLES. 2) FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP
- AND MID SECTION. 3) WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH
- OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES AND FOLDED. 4) MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

#### SILTATION FENCE SCALE: N.T.S.

## NOTES:

- 1. INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND STRAWBALES HAVE BEEN REMOVED.
- 2. GRATE TO BE PLACED OVER SILTSACK.
- 3. 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.

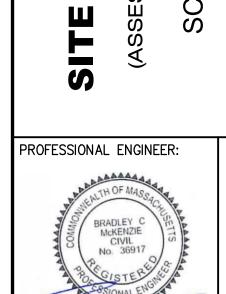
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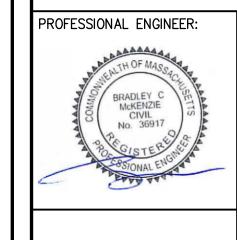


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AN N DRAWN BY: DESIGNED BY: CHECKED BY: BCM

APPROVED BY: BCM JUNE 22, 2021 218-153

SCALE: PROJECT NO.:

DWG. TITLE:

CONSTRUCTION DETAILS

DWG. NO: