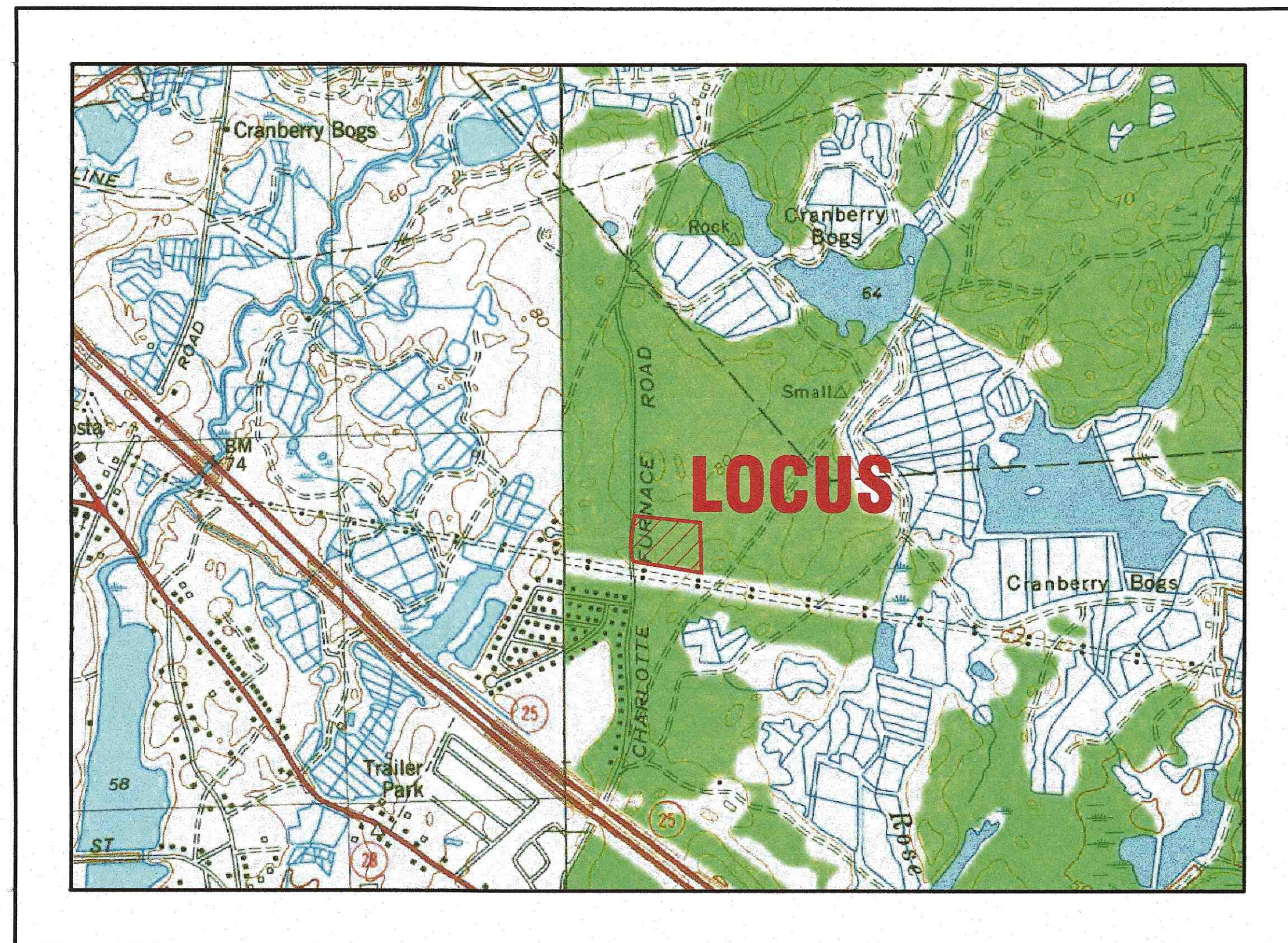


MASTER MILLWORK, INC.

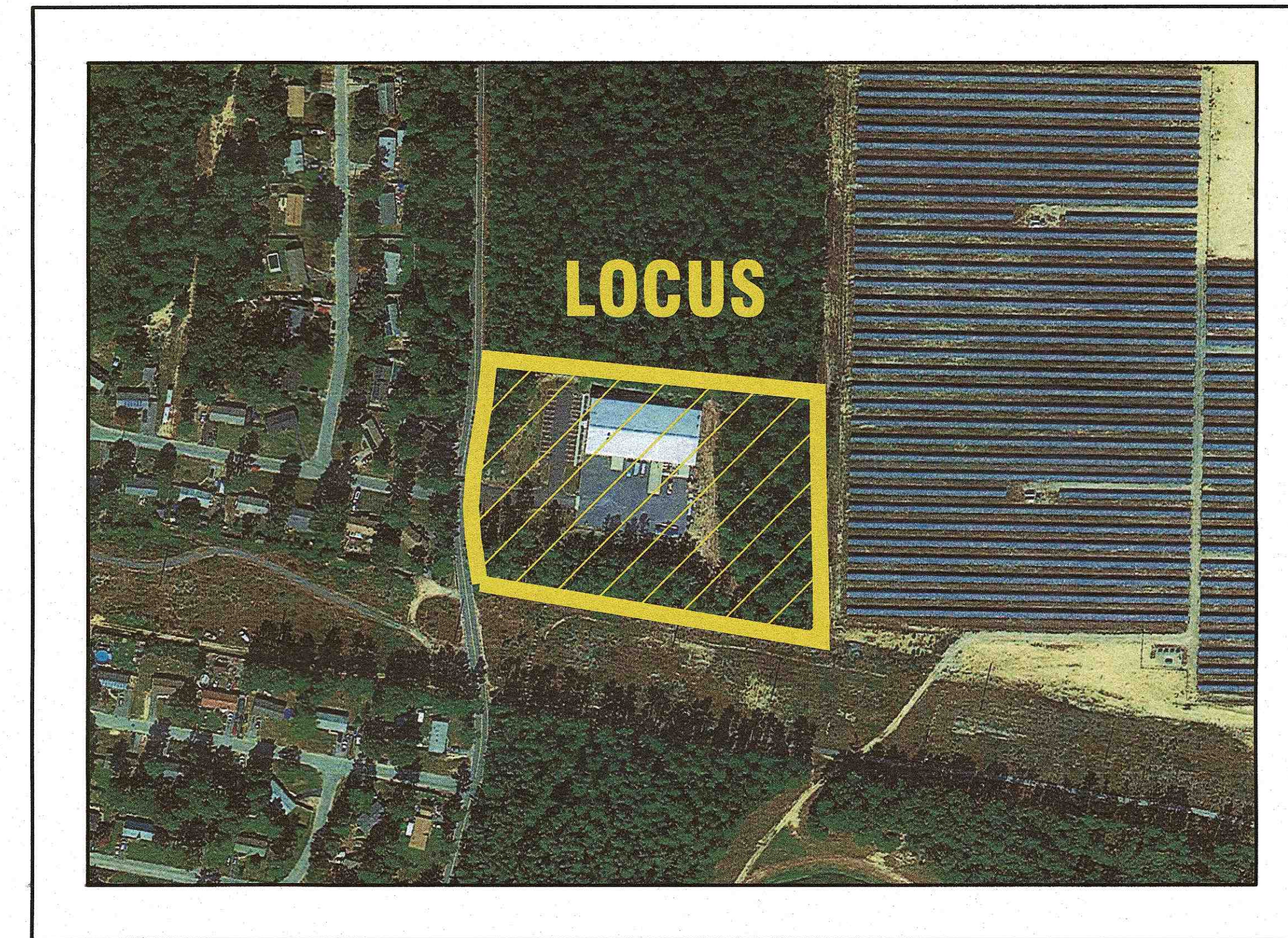
SITE DEVELOPMENT PLAN 55 CHARLOTTE FURNACE ROAD WAREHAM, MASSACHUSETTS

OWNER: MASTER MILLWORK, INC.
41 MEETING HOUSE LANE, SUITE 11
SAGAMORE BEACH, MA 02562

APPLICANT: MASTER MILLWORK, INC.
41 MEETING HOUSE LANE, SUITE 11
SAGAMORE BEACH, MA 02562



— U.S.G.S. LOCUS PLAN —
SCALE: 1"=1000'



— AERIAL OVERVIEW —
SCALE: 1"=200'

SITE DATA

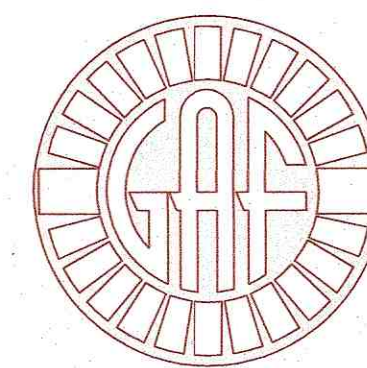
ZONING DISTRICT: BDD0
ASSESSOR'S MAP: 105
ASSESSOR'S LOTS: MA2
REQUIRED LOT AREA: 87,120 S.F.
MIN. FRONTAGE: 100'
MIN. FRONT SETBACK: 25'
MIN. SIDE & REAR SETBACK: 10'
MAX. PRINCIPAL BUILDING HEIGHT: 40'
MAX. BUILDING COVERAGE: 25%
MAX. FLOOR AREA RATIO: 75%
MAX. IMPERVIOUS COVERAGE: 65%
WATER SUPPLY: TOWN WATER
SANITARY SEWER: ON SITE SEPTIC
LANDSCAPE BUFFER: 10'

ZONING DATA

ZONING TABLE	ALLOWED	EXISTING	PROVIDED
LOT AREA:	87,120 S.F.	261,408 S.F. (SAME AS EXISTING)	
FRONT SETBACK:	25'	178.8' (SAME AS EXISTING)	
SIDE SETBACK:	10'	40.3' (SAME AS EXISTING)	
REAR SETBACK:	10'	217.0'	63.1'
MAX. BUILDING COVERAGE:	25%	7.7%	24.5%
MAX. LOT COVERAGE:	65%	23.9%	57.7%

FLOOD ZONE DATA

THE ENTIRE LOCUS IS LOCATED IN FLOOD ZONE X, AS INDICATED ON FEMA FIRM MAP# 25023C0486J DATED: JULY 17, 2012.



G. A. F. ENGINEERING, INC.
PROFESSIONAL ENGINEERS & LAND SURVEYORS
266 MAIN STREET, WAREHAM, MA 02571
TEL: (508) 295-6600 FAX: (508) 295-6634
E-MAIL: gaf@gaf-eng.com

JULY 8, 2020

PLAN INDEX:

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES & LEGEND
3	EXISTING CONDITIONS & DEMOLITION
4	LAYOUT & UTILITIES
5	GRADING & DRAINAGE
6	LANDSCAPING PLAN
7	DETAIL SHEET 1
8	DETAIL SHEET 2
9	DETAIL SHEET 3
10	DETAIL SHEET 4

PARKING DATA:

REQUIRED (OFFICE): 1 SPACE PER 250 S.F. G.F.A.
10,000 S.F./250 S.F.=40 SPACES
REQUIRED (WAREHOUSE): 1 SPACE PER 1.5 EMPLOYEES ON LARGEST SHIFT PLUS ONE PER VEHICLE STORED ON PREMISES.
PROPOSED NUMBER OF EMPLOYEES=50
NUMBER OF PARKING SPACES REQUIRED=34

TOTAL REQUIRED: 74 SPACES
PROVIDED: 83 SPACES (EXISTING & PROPOSED)

DATE	REV.	DATE	BY	APP'D	DESCRIPTION
JULY 8, 2020					
DRAWN BY: JMP					
CHECKED BY: WFM					
JOB NO.: 19-9342					
SCALE: AS NOTED					
APPROVED BY: <i>[Signature]</i>					
G.A.F. ENGINEERING, INC. PROFESSIONAL ENGINEERS & LAND SURVEYORS 266 MAIN STREET - WAREHAM, MA 02571 TEL: (508) 295-6600 FAX: (508) 295-6634 E-MAIL: gaf@gaf-eng.com					
SITE DEVELOPMENT PLAN COVER SHEET 55 CHARLOTTE FURNACE ROAD WAREHAM, MA PREPARED FOR: MASTER MILLWORK, INC. 41 MEETING HOUSE LANE, SUITE 11 SAGAMORE BEACH, MA					
JOB NO.: 19-9342					
DWG. 1 OF 10					

PERMIT SET
(NOT FOR CONSTRUCTION)

GENERAL NOTES:

- ALL UNDERGROUND UTILITIES SHOWN OR NOT SHOWN WERE COMPILED ACCORDING TO AVAILABLE RECORD PLANS AND IN PART FROM FIELD SURVEY AND ARE APPROXIMATE ONLY. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD. BEFORE EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION, OR REPAIRING, ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN. SEE MGL CHAPTER 370, ACTS OF 1963. CONTRACTORS MUST CALL DIG-SAFE AT (1-888-DIG-SAFE OR 811) G.A.F. ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.
- EXISTING CONDITIONS INFORMATION IS BASED ON AN ON THE GROUND FIELD SURVEY BY GAF ENGINEERING ON VARIOUS DATES AND MOST RECENTLY IN JULY OF 2019.
- THE CONTRACTOR SHALL COORDINATE AND OBTAIN ALL REQUIRED PERMITS, GIVE ALL NOTICES, COMPLY WITH ALL LAWS AND REGULATIONS, AND PAY ALL FEES ASSOCIATED WITH THE INSTALLATION OF THIS WORK.
- THE CONTRACTOR SHALL FIELD VERIFY, PRIOR TO CONSTRUCTION ALL EXISTING UNDERGROUND UTILITY LOCATIONS AND POINTS OF INTERCONNECTION.
- THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, SUPERVISION, TOOLS, EQUIPMENT, FUEL, POWER, SANITARY FACILITIES AND INCIDENTALS NECESSARY FOR THE FURNISHING, PERFORMANCE, TESTING, START-UP AND COMPLETION OF THIS WORK.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER OF ANY CONFLICTS DISCOVERED IN THE FIELD.
- ANY CHANGES TO THESE SITE PLANS THAT ARE MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE CONTRACTOR ON RECORD DOCUMENTS AND REPORTED TO THE OWNER AND ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN EXCAVATION AND TRENCH PERMIT PURSUANT TO 520 CMR 14.00 AS APPLICABLE PRIOR TO THE START OF CONSTRUCTION.

CONSTRUCTION NOTES:

- IN GENERAL, THE PLANS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EVERY FITTING, CHANGE IN DIRECTION OR DETAIL OF CONSTRUCTION.
- THE LOCATION OF UTILITIES WERE OBTAINED FROM VARIOUS SOURCES OF INFORMATION. THE EXACT LOCATION AND COMPLETENESS IS NOT GUARANTEED. THE CONTRACTOR MUST NOTIFY DIG SAFE PRIOR TO THE START OF CONSTRUCTION (1-888-DIG-SAFE OR 811). G.A.F. ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF PERSONNEL AND PROTECTION OF PROPERTY AT THE SITE OR ADJACENT THERETO INCLUDING TREES, SHRUBS, LAWNS, PAVEMENTS, ROADWAYS, STRUCTURES AND UNDERGROUND UTILITIES NOT DESIGNED FOR REMOVAL, RELOCATION, OR REPLACEMENT.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION REQUIRED FOR THE INSTALLATION OF THIS WORK.
- ALL MATERIALS SHALL BE NEW AND FREE FROM DEFECTS AND OF GOOD QUALITY.
- THE CONTRACTOR SHALL KEEP THE PREMISES FREE FROM THE ACCUMULATION OF WASTE MATERIAL AND OTHER DEBRIS RESULTING FROM THIS WORK.
- ALL PAVEMENT MARKINGS DISTURBED BY CONSTRUCTION SHALL BE RESTORED AS PART OF THIS WORK.
- THE CONTRACTOR SHALL INSTITUTE ALL SAFETY MEASURES NECESSARY TO PROTECT THE PUBLIC SAFETY. THIS SHALL INCLUDE, BUT NOT LIMITED TO, BARRICADES, SIGNS, LIGHTING, FENCES, POLICE DETAILS, AND ANY OTHER MEANS AS DIRECTED. NO TRENCHES ARE TO REMAIN OPEN OVERNIGHT.
- ELEVATIONS ARE IN FEET AND TENTHS AND ARE BASED ON THE DATUM OF NAVD-88.
- SIDE SLOPE GRADING SHALL BE AS NOTED ON THE SITE PLANS.
- ALL SIDE SLOPES SHALL BE DRESSED WITH 4 INCHES OF TOPSOIL. WHERE SIDE SLOPES EXCEED 3:1, PROVIDE AN EROSION CONTROL BLANKET OVER THE PLANTED SEED BED. SEE PLAN FOR LOCATIONS.
- PERMANENT SEEDING (BEFORE SEPTEMBER 15) LIME TO PH OF 6.5 ACCORDING TO SOIL TEST OR APPLY AT THE RATE OF 100 TO 150 LBS. PER 1,000 SQUARE FEET. APPLY 10-20-20 FERTILIZER AT 1,000 LBS. PER ACRE. INCORPORATE LIME AND FERTILIZER IN TOP 4 INCHES OF SOIL. SEED 100 LBS. PER ACRE OF THE FOLLOWING SEED MIX.

PURE PERCENT	SEED
30-35%	CREeping RED FESCUE
30-35%	PERENNIAL RYEGRASS
20-25%	KENTUCKY BLUEGRASS
10-15%	ANNUAL RYEGRASS

HYDRO SEEDING IS AN ALTERNATIVE FOR THIS APPLICATION. A MIXTURE OF SEED WATER AND MULCH IS SPRAYED ON THE SEED BED COMBINING THREE (3) SEPARATE ACTIONS INTO ONE (1) OPERATION
- ALL SEWER AND PLUMBING WORK SHALL CONFORM WITH 248 CMR 10.00 UNIFORM STATE PLUMBING CODE AND THE TOWN OF WAREHAM SEWER DEPARTMENTS SPECIFICATIONS.
- ALL METHODS AND MATERIALS SHALL CONFORM WITH MassDOT STANDARDS AND SPECIFICATIONS, AND THE REQUIREMENTS OF THE TOWN OF WAREHAM MUNICIPAL MAINTENANCE DEPARTMENT.
- ALL UTILITY INSTALLATIONS SHALL BE IN CONFORMANCE WITH ALL APPLICABLE TOWN, STATE AND FEDERAL REQUIREMENTS & REGULATIONS.
- DEWATERING IF REQUIRED SHALL BE DIRECTED TO A 5' MIN. DIAMETER RING OF HAYBALES OR A DIRTBAG. CONTRACTOR SHALL PROVIDE AND MAINTAIN DEWATERING EQUIPMENT FOR THE CONTROL, COLLECTION AND DISPOSAL OF GROUND AND SURFACE WATER WHERE NECESSARY TO COMPLETE THE WORK.

EROSION CONTROL NOTES:

- THE SITE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SUITABLE EROSION AND SEDIMENTATION CONTROL DEVICES ON SITE DURING CONSTRUCTION AS REQUIRED TO PREVENT SILT FROM LEAVING THE SITE. SILT WILL NOT BE ALLOWED BEYOND CONSTRUCTION LIMITS. ADDITIONAL PROTECTION: ON-SITE PROTECTION MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNFORESEEN CONDITIONS OR ACCIDENTS.
- EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLANS DOES NOT PROVIDE SUFFICIENT EROSION AND SEDIMENT CONTROL, ADDITIONAL CONTROL MEASURES SHALL BE IMPLEMENTED. CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING EROSION CONTROL DEVICES WHICH BECOME INEFFECTIVE.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR ALL GRADING AND OTHER LAND DISTURBING ACTIVITIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE CLEANUP AND REMOVAL OF ANY BUILDUP OF SEDIMENT WHICH ESCAPES FROM THE SITE.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING SILT AND DEBRIS OUT OF ALL STORM DRAINAGE STRUCTURES UPON THE COMPLETION OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL TEMPORARY EROSION CONTROL MEASURES AFTER CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY FINES LEVIED AGAINST THE SITE FOR VIOLATIONS OF EROSION CONTROL REGULATIONS.
- CONTRACTOR SHALL PROVIDE TEMPORARY GROUND COVER FOR ALL AREAS WITH EXPOSED SOIL WHICH WILL NOT BE DISTURBED BY GRADING OPERATIONS FOR A PERIOD OF THIRTY DAYS OR MORE.
- IF WORK ON THIS PROJECT IS SUSPENDED FOR ANY REASON, THE CONTRACTOR SHALL MAINTAIN THE SOIL EROSION AND SEDIMENTATION CONTROL FACILITIES IN GOOD CONDITION DURING THE SUSPENSION OF WORK.
- SPRINKLE OR APPLY DUST SUPPRESSERS TO MINIMIZE DUST AT THE CONSTRUCTION SITE. MAINTAIN DUST CONTROL MEASURES UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
- THE CONTRACTOR WILL ALSO NEED TO COMPLY TO ANY ORDER OF CONDITIONS THAT MAY BE ISSUED BY THE TOWN OF WAREHAM CONSERVATION COMMISSION.

DRAINAGE OPERATION AND MAINTENANCE SCHEDULE:

- THE OPERATION AND MAINTENANCE (O&M) SCHEDULE DURING THE CONSTRUCTION PERIOD IS THE RESPONSIBILITY OF THE CONTRACTOR. THE OUTLINE BELOW SHALL BE FOLLOWED TO ENSURE THE PROPER CONSTRUCTION AND FUNCTION OF THE DRAINAGE FACILITIES.
- IN CONJUNCTION WITH THE SITE CONSTRUCTION, ALL DRAINAGE STRUCTURES SHALL BE INSTALLED AND THE AFFECTED AREAS STABILIZED (LOAM AND SEED, HYDROSEED, PLANTED, RIP-RAP, ETC.). PERMANENT STABILIZATION OF THESE AREAS SHALL BE STARTED AS SOON AS POSSIBLE.
 - EROSION CONTROL SHALL BE PLACED ALONG THE LIMITS OF WORK WHERE SHOWN ON THE PLAN.
 - ALL EXISTING CATCH BASINS SHALL HAVE A TEMPORARY SILT SACK INSTALLED IN THEM PRIOR TO CONSTRUCTION. ALL PROPOSED CATCH BASINS AND WATER QUALITY CATCH BASINS SHALL HAVE TEMPORARY SILT SACK INSTALLED IN THEM AS SOON AS THE STRUCTURE IS SET. CONTRACTOR SHALL REMOVE AND DISPOSE OF THEM AT THE COMPLETION OF CONSTRUCTION. ALL EXISTING AND PROPOSED CATCH BASINS AND WATER QUALITY CATCH BASINS SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION. IF THERE IS ANY SEDIMENT BUILDUP, THE AFFECTED STRUCTURES SHALL BE CLEANED IMMEDIATELY, AND ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
 - THE INFILTRATION BASIN SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION. IF THERE IS ANY SEDIMENT BUILDUP, THE AFFECTED STRUCTURES SHALL BE CLEANED IMMEDIATELY, AND ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
 - STONE FILLED TRENCHES SHALL BE COVERED WITH AN ADDITIONAL TEMPORARY LAYER OF FILTER FABRIC UNTIL THE ABOVE GRADIENT SLOPE IS STABILIZED. IF THERE IS ANY EVIDENCE OF SEDIMENT ENTERING THE TRENCHES, THE AFFECTED AREA OF THE TRENCH SHALL BE FULLY RECONSTRUCTED INCLUDING THE FILTER FABRIC.
 - THE LEACHING GALLEYS AND OIL/GRIT SEPARATOR SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION. IF THERE IS ANY SEDIMENT BUILDUP, THE AFFECTED STRUCTURES SHALL BE CLEANED IMMEDIATELY, AND ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
 - ALL AREAS SHALL BE INSPECTED WEEKLY, AND AFTER LARGE STORMS. IF THERE IS EVIDENCE OF EROSION, THE ERODED AREA SHALL BE RE-STABILIZED, AND MEASURES SHALL BE TAKEN TO PREVENT REOCCURRENCE. THIS SCHEDULE MUST BE ADHERED TO BY THE CONTRACTOR UNTIL THE PROJECT IS ACCEPTED BY THE OWNER.

POST-CONSTRUCTION OPERATION AND MAINTENANCE PLAN:

UPON THE COMPLETION OF CONSTRUCTION, MAINTENANCE SHALL BE CONDUCTED BY THE OWNER OR OWNER'S AGENT ON THE SITE. THE FOLLOWING SHALL BE CARRIED OUT BY THE RESPONSIBLE PARTY AND SHALL BE ADHERED TO ENSURE THE PROPER OPERATION OF THE DRAINAGE FACILITIES.

- PARKING LOT SWEEPING IS AN EFFECTIVE NONSTRUCTURAL SOURCE CONTROL THAT WILL REMOVE SEDIMENT FROM PAVED SURFACES. PARKING LOT SWEEPING SHOULD BE DONE BY THE USE OF A HIGH EFFICIENCY VACUUM SWEEPER OR REGENERATIVE AIR SWEEPER. PARKING LOT SWEEPING SHALL BE DONE TWICE PER YEAR. ONCE REMOVED FROM PAVED SURFACES, THE SWEEPINGS MUST BE HANDLED AND DISPOSED OF PROPERLY IN ONE OF THE WAYS APPROVED BY MASSDEP (SEE POLICY # BAW-18-001: REUSE & DISPOSAL OF STREET SWEEPINGS).
- NYLOPLAST DRAIN MANHOLES SHALL BE INSPECTED MONTHLY, AND SHALL BE CLEANED AT LEAST FOUR TIMES PER YEAR AND AT THE END OF THE FOLIAGE AND SNOW-REMOVAL SEASONS. ALL DEBRIS, SEDIMENTS AND HYDROCARBONS SHOULD BE HANDLED PROPERLY AND DISPOSED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL GUIDELINES AND REGULATIONS. IF THERE IS EVIDENCE THAT THEY HAVE BEEN CONTAMINATED BY A SPILL OR OTHER MEANS, THE CLEANINGS MUST BE EVALUATED IN ACCORDANCE WITH THE MASSDEP HAZARDOUS WASTE REGULATIONS, 310 CMR 30.000 AND HANDLED AS HAZARDOUS WASTE.
- PROPRIETARY CATCH BASINS (WATER QUALITY CATCH BASINS) ARE UNDERGROUND RETENTION SYSTEMS DESIGNED TO REMOVE TRASH, DEBRIS AND COARSE SEDIMENT FROM STORMWATER RUNOFF AND SERVE AS TEMPORARY SPILL CONTAINMENT DEVICES FOR FLOATABLES SUCH AS OILS AND GREASE. INSPECT THE UNITS MONTHLY AND CLEAN AT LEAST TWO TIMES PER YEAR AND AT THE END OF THE FOLIAGE AND SNOW-REMOVAL SEASONS. SEDIMENTS MUST ALSO BE REMOVED WHENEVER THE DEPTH OF DEPOSITS IS GREATER THAN OR EQUAL TO ONE HALF THE DEPTH FROM THE BOTTOM OF THE INVERT. SEDIMENT SHALL BE REMOVED THROUGH THE USE OF A VACUUM TRUCK. SEDIMENT MUST BE HANDLED AND DISPOSED OF PROPERLY IN ONE OF THE WAYS ALREADY APPROVED BY MASSDEP (SEE MASSDEP POLICY ON MANAGEMENT OF CATCH BASIN CLEANINGS). IF THERE IS EVIDENCE THAT THEY HAVE BEEN CONTAMINATED BY A SPILL OR OTHER MEANS, THE CLEANINGS MUST BE EVALUATED IN ACCORDANCE WITH THE MASSDEP HAZARDOUS WASTE REGULATIONS, 310 CMR 30.00 AND HANDLED AS HAZARDOUS WASTE.
- INFILTRATION BASIN AREAS SHALL BE INSPECTED AT LEAST FOUR TIMES PER YEAR TO ENSURE THE BASINS ARE OPERATING AS INTENDED. ALSO INSPECT THE BASINS DURING AND AFTER MAJOR STORM EVENTS TO DETERMINE IF THE BASINS ARE MEETING THE EXPECTED DETENTION TIMES. POTENTIAL PROBLEMS THAT SHALL BE CHECKED INCLUDE: SUBSIDENCE, EROSION, CRACKING OR TREE GROWTH ON THE EMBANKMENT, SEDIMENT ACCUMULATION AROUND THE STONE FILLED TRENCH, DAMAGE TO THE EMERGENCY SPILLWAY, UNITS MONTHLY AND CLEAN AT LEAST TWO TIMES PER YEAR AND AT THE END OF THE FOLIAGE AND SNOW-REMOVAL SEASONS. SEDIMENTS MUST ALSO BE REMOVED WHENEVER THE DEPTH OF DEPOSITS IS GREATER THAN OR EQUAL TO ONE HALF THE DEPTH FROM THE BOTTOM OF THE INVERT. SEDIMENT SHALL BE REMOVED THROUGH THE USE OF A VACUUM TRUCK. SEDIMENT MUST BE HANDLED AND DISPOSED OF PROPERLY IN ONE OF THE WAYS ALREADY APPROVED BY MASSDEP (SEE MASSDEP POLICY ON MANAGEMENT OF CATCH BASIN CLEANINGS). IF THERE IS EVIDENCE THAT THEY HAVE BEEN CONTAMINATED BY A SPILL OR OTHER MEANS, THE CLEANINGS MUST BE EVALUATED IN ACCORDANCE WITH THE MASSDEP HAZARDOUS WASTE REGULATIONS, 310 CMR 30.00 AND HANDLED AS HAZARDOUS WASTE.
- STONE FILLED TRENCHES SHALL BE INSPECTED DURING AND 24 HOURS AFTER ALL MAJOR STORM EVENTS TO LOOK FOR PONDED WATER. IF THERE IS EVIDENCE OF PONDED WATER AT THE SURFACE OF THE TRENCH, IT IS LIKELY THAT THE TRENCH IS CLOGGED. REMOVE AND REPLACE THE FIRST LAYER OF STONE AGGREGATE AND FILTER FABRIC. IF WATER IS PONDED INSIDE THE TRENCH THEN THE TRENCH HAS FAILED. IN THIS CASE REMOVE ALL ACCUMULATED SEDIMENT, STONE AND FILTER FABRIC, THE BOTTOM OF THE TRENCH MUST BE SCARIFIED AND FILLED TO INDUCE INFILTRATION AND REPLACE WITH NEW STONE AND FILTER FABRIC. INSPECT STONE TRENCHES EVERY 6 MONTHS AND ROUTINELY REMOVE DEBRIS, TRASH, LEAVES, AND ANY SEDIMENT FROM THE SURFACE OF THE TRENCH, AND STONE IF NECESSARY.
- DEEP SUMP CATCH BASINS ARE UNDERGROUND RETENTION SYSTEMS DESIGNED TO REMOVE TRASH, DEBRIS AND COARSE SEDIMENT FROM STORMWATER RUNOFF AND SERVE AS TEMPORARY SPILL CONTAINMENT DEVICES FOR FLOATABLES SUCH AS OILS AND GREASE. INSPECT CATCH BASINS MONTHLY AND CLEAN AT LEAST TWO TIMES PER YEAR AND AT THE END OF THE FOLIAGE AND SNOW-REMOVAL SEASONS. SEDIMENTS MUST ALSO BE REMOVED WHENEVER THE DEPTH OF DEPOSITS IS GREATER THAN OR EQUAL TO ONE HALF THE DEPTH FROM THE BOTTOM OF THE INVERT. SEDIMENT SHALL BE REMOVED THROUGH THE USE OF A VACUUM TRUCK. SEDIMENT MUST BE HANDLED AND DISPOSED OF PROPERLY IN ONE OF THE WAYS ALREADY APPROVED BY MASSDEP (SEE MASSDEP POLICY ON MANAGEMENT OF CATCH BASIN CLEANINGS). IF THERE IS EVIDENCE THAT THEY HAVE BEEN CONTAMINATED BY A SPILL OR OTHER MEANS, THE CLEANINGS MUST BE EVALUATED IN ACCORDANCE WITH THE MASSDEP HAZARDOUS WASTE REGULATIONS, 310 CMR 30.00 AND HANDLED AS HAZARDOUS WASTE.
- OIL/GRIT SEPARATORS ARE UNDERGROUND STORAGE TANKS WITH THREE CHAMBERS DESIGNED TO REMOVE HEAVY PARTICULATES, FLOATING DEBRIS AND HYDROCARBONS FROM STORMWATER. INSPECT OIL/GRIT SEPARATORS MONTHLY AND CLEAN THEM OUT AT LEAST TWICE PER YEAR. POLLUTED WATER OR SEDIMENT REMOVED FROM AN OIL/GRIT SEPARATOR SHOULD BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE & FEDERAL LAWS AND REGULATIONS.
- LEACHING GALLEYS SHALL BE INSPECTED AFTER EVERY MAJOR STORM EVENT IN THE FIRST FEW MONTHS AFTER CONSTRUCTION TO ENSURE PROPER STABILIZATION AND FUNCTION. THEREAFTER, THE LEACHING GALLEYS SHALL BE INSPECTED AT LEAST ONCE PER YEAR. WATER DEPTH IN THE LEACHING GALLEYS SHOULD BE OBSERVED AND MEASURED AT 0, 24, AND 48-HOUR INTERVALS AFTER A MAJOR STORM EVENT AT LEAST ONCE PER YEAR. EXFILTRATION RATES ARE CALCULATED BY DIVIDING THE DROP IN THE WATER LEVEL (INCHES) BY THE ELAPSED TIME (HOUR). A COMPARISON OF EXFILTRATION RATE MEASUREMENTS TAKEN OVER THE YEARS PROVIDE A USEFUL TOOL TRACKING ANY CLOGGING PROBLEMS WITH THE UNDERGROUND INFILTRATION SYSTEM.

DRAINAGE INSTALLATION NOTES:

- ALL DRAINAGE PIPES, UNLESS OTHERWISE NOTED, ARE TO BE ADS N-12 PIPE WITH SOIL TIGHT JOINTS AND FITTINGS. REFER TO PLAN FOR LOCATION, SIZES AND SLOPES.
- ALL ROOF DRAIN PIPES, UNLESS OTHERWISE NOTED, ARE TO BE 6" ADS N-12 PIPE WITH SOIL TIGHT JOINTS AND FITTINGS. MINIMUM SLOPE TO BE 1.00%. REFER TO PLAN FOR LOCATION.
- MIN. COVER ON PIPES SHALL NOT BE LESS THAN 1.5 FEET.
- ALL WORK AND MATERIAL SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF WAREHAM MUNICIPAL MAINTENANCE DEPARTMENT.

PERMIT SET
(NOT FOR CONSTRUCTION)

DEMOLITION NOTES:

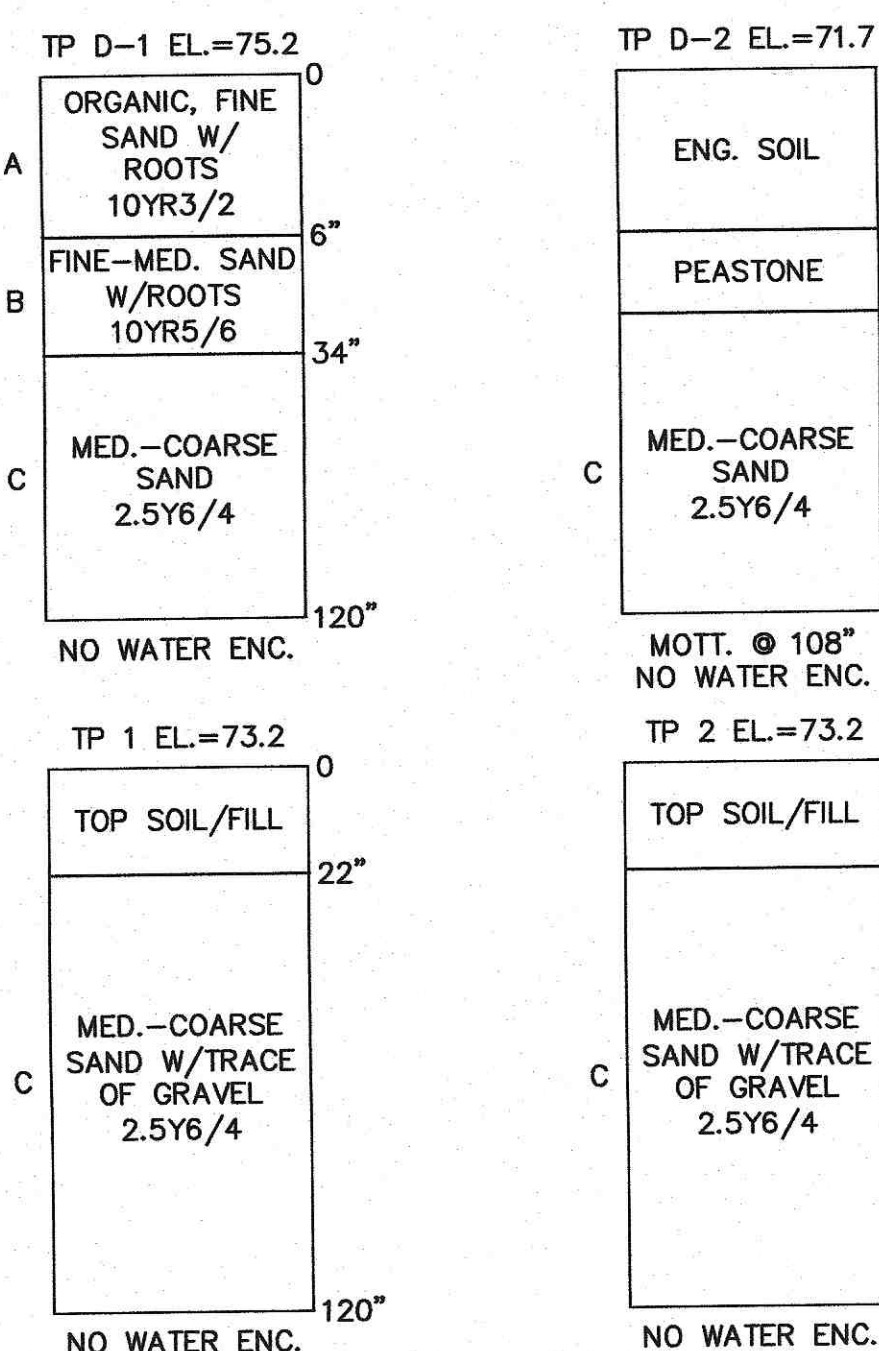
- IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE HIS/HER OWN DETERMINATION OF SUBSURFACE CONDITIONS, INCLUDING THE LOCATION OF ROCK AND THE ACTUAL LOCATION OF UTILITIES OR OTHER FEATURES WHICH MAY AFFECT HIS/HER WORK. ANY UNSUITABLE MATERIAL ENCOUNTERED DURING CONSTRUCTION WILL BE REPORTED TO THE ENGINEER OF RECORD FOR RESOLUTION AND CONSTRUCTION METHOD.
- THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND APPARATUS NECESSARY AND SHALL DO ALL WORK REQUIRED TO COMPLETE THE DEMOLITION, REMOVAL, AND ALTERATIONS OF EXISTING FACILITIES, INCLUDING PIPING SYSTEMS AND APPURTENANCES, DRAINAGE, PAVEMENT, LANDSCAPE AND SITE FEATURES ENCOUNTERED DURING THE INSTALLATION AS INDICATED ON THE DRAWINGS, AS HEREIN SPECIFIED, AND/OR AS DIRECTED BY THE DESIGN ENGINEER.
- ALL EQUIPMENT, PIPING, AND OTHER MATERIALS THAT ARE NOT TO BE RELOCATED OR TO BE RETURNED TO THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM, AWAY FROM THE SITE OF THE WORK AND AT HIS OWN EXPENSE.
- ALL DEMOLITION OR REMOVAL OF EXISTING STRUCTURES, PAVEMENT, UTILITIES, EQUIPMENT, AND APPURTENANCES, LANDSCAPE AND SITE FEATURES SHALL BE ACCOMPLISHED WITHOUT DAMAGING THE INTEGRITY OF EXISTING STRUCTURES, EQUIPMENT, PAVEMENT, APPURTENANCES, AND TREES TO REMAIN.
- SUCH ITEMS THAT ARE DAMAGED SHALL BE EITHER REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO A CONDITION AT LEAST EQUAL TO THAT WHICH EXISTED PRIOR TO THE START OF HIS WORK TO THE SATISFACTION OF THE DESIGN ENGINEER AND/OR THE OWNER.
- PROVIDE TWO (2) COPIES OF PROPOSED METHODS AND OPERATIONS OF DEMOLITION TO THE OWNER AND ENGINEER FOR REVIEW PRIOR TO THE START OF WORK. INCLUDE IN THE SCHEDULE THE COORDINATION FOR SHUTOFF, CAPPING AND CONTINUATION OF UTILITY SERVICES AS REQUIRED.
- PROVIDE A DETAILED SEQUENCE OF WORK TO THE DESIGN ENGINEER AND THE OWNER FOR DEMOLITION AND REMOVAL WORK TO ENSURE THE UNINTERRUPTED PROGRESS OF THE OWNER'S OPERATIONS.
- ENSURE THE SAFE PASSAGE OF PERSONS AROUND THE AREA OF DEMOLITION. CONDUCT OPERATIONS TO PREVENT INJURY TO ADJACENT BUILDINGS, STRUCTURES, OTHER FACILITIES AND PERSONS.
- PROVIDE INTERIOR AND EXTERIOR SHORING, BRACING, OR SUPPORT TO PREVENT MOVEMENT, SETTLEMENT OR COLLAPSE OF STRUCTURES TO BE DEMOLISHED AND ADJACENT FACILITIES TO REMAIN.
- THE CONTRACTOR SHALL PROMPTLY REPAIR DAMAGES CAUSED BY DEMOLITION OPERATIONS TO ADJACENT FACILITIES AT NO COST TO THE OWNER.
- THE EXISTING BUILDING FOOTPRINT SHALL BE BACKFILLED WITH STRUCTURAL FILL AND COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY. THE SLAB SHOULD BE CONSTRUCTED ON A MINIMUM 8 INCH THICK LAYER OF COMPACTED 3/4" CRUSHED STONE. COORDINATE WITH ALL ARCHITECTURAL AND STRUCTURAL DRAWINGS.

WATER INSTALLATION NOTES:

- ALL WATER MAINS, SERVICES, GATE VALVES/GATE BOX, CURB STOPS, HYDRANTS, FITTINGS, ETC. & METHOD OF INSTALLATION SHALL CONFORM TO THE TOWN OF WAREHAM FIRE DISTRICT RULES & REGULATIONS.
- WATER MAIN SHALL BE TESTED & DISINFECTED IN ACCORDANCE WITH THE TOWN OF WAREHAM FIRE DISTRICT REQUIREMENTS.
- CONTRACTOR TO COORDINATE WITH THE TOWN OF WAREHAM FIRE DISTRICT FOR THE INSPECTIONS OF THE WATER MAIN INSTALLATION.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO COMPLETE THE INSTALLATION OF THE WATER SERVICE.
- THE CONTRACTOR SHALL OBTAIN A COPY OF THE REGULATIONS FROM THE TOWN OF WAREHAM FIRE DISTRICT BEFORE PROCEEDING WITH THE INSTALLATION OF THE WATER SERVICE.
- WATER MAIN/SERVICE SHALL BE INSTALLED A MINIMUM OF 1' BELOW ALL PROPOSED DRAINAGE LINES.

TEST PIT DATA

DATE OF TESTING: AUGUST 22, 2019
PERFORMED BY: BRIAN GRADY, G.A.F. ENGINEERING, INC.
REFER TO EXISTING CONDITIONS & DEMOLITION PLAN FOR TEST PIT LOCATIONS



ABBREVIATIONS

AC	ASBESTIC CONCRETE
ADS	ADVANCED DRAINAGE SYSTEM
APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BIT. CONC.	BITUMINOUS CONCRETE
BLDRS	BOULDERS
BW	BOTTOM OF WALL
BVW	BORDERING VEGETATED WETLANDS
CB	CATCH BASIN
CB/DH	CONCRETE BOUND/DRILL HOLE
CCB	CAPE COD BERM
CEM.	CEMENT
C.I.	CAST IRON
CONC.	CONCRETE
C.L.D.I.	CEMENT LINED DUCTILE IRON
CMP	CORRUGATED METAL PIPE
CP	CORRUGATED PLASTIC PIPE
DIA	DIAMETER
DMH	DRAIN MANHOLE
D.I.	DUCTILE IRON
DCS	DRAINAGE CONTROL STRUCTURE
E	ELECTRIC
ELEV.,EL.	ELEVATION
EXP	EDGE OF PAVEMENT
EX	EXISTING
F.D.C.	FIRE DEPARTMENT CONNECTION
F.E.S.	FLARED END SECTION
F.F.E.	FINISHED FLOOR ELEVATION
F.N.D.	FOUND
FP	FIRE PROTECTION
G	GAS
GG,GV	GAS GATE, GAS VALVE
H.C.	HANDICAP PARKING
H.D.P.E.	HIGH DENSITY POLYETHYLENE
HYD	HYDRANT
INV.	INVERT
MAX	MAXIMUM
MED	MEDIUM
MIN.	MINIMUM
N.T.S.	NOT TO SCALE
N/F	NOW OR FORMERLY
OHW	OVERHEAD WIRE
PCC	PRECAST CONCRETE CURBING
PVC	POLYVINYL CHLORIDE PIPE
PROP.	PROPOSED
RPC	REINFORCED CONCRETE PIPING
R	RADIUS
R&S	REMOVE AND DISPOSE
SB/DH	REMOVE AND STOCK
S	STONE BOUND/DRILL HOLE
SCC	SLOPED GRANITE CURBING
SMH	SEWER MANHOLE
STA	STATION
TC	TOP OF CURB
TW	TOP OF WALL
TYP.	TYPICAL
T/O/F	TOP OF FOUNDATION
UP	UTILITY POLE
UE	UNDERGROUND ELECTRIC
VCC	VERTICAL GRANITE CURB
W	WATER
WG,WV	WATER GATE, WATER VALVE
WQS	WATER QUALITY STRUCTURE

LEGEND

EXISTING	DESC.	PROPOSED
55	CONTOURS	55
53x5	SPOT GRADES	52x5
	WETLANDS	
	F.E.M.A. FLOOD ZONE	
D	DRAIN LINE	D
	PERFORATED DRAIN LINE	
RD	ROOF DRAIN LINE	RD
	CATCH BASIN (CB)	
	DRAIN MANHOLE (DMH)	
	ELECTRIC MANHOLE (EMH)	
UE	UNDERGROUND UTILITIES	UE
OHW	OVERHEAD WIRES	OHW
	UTILITY POLE	
	GUY POLE	
	WATER GATE VALVE	
	WATER SHUTOFF/CURB STOP	
	HYDRANT	
	POST INDICATOR VALVE	
	WATER LINE	
FP	FIRE PROTECTION LINE	FP
S	SEWER MANHOLE (SMH)	S
	TREELINE	
	LIGHT POST	
	GAS LINE	
	GAS GATE/VALVE	
	GAS SHUTOFF	
	GAS METER	
	SIGN	
	FENCE	
	BOUND	
PT	TEST PIT/PERC TEST	PT
	SILT FENCE	
	GUARD RAIL	
	FLARED END SECTION	
	STONE WALL	

DATE: JULY 8, 2020
DRAWN BY: JMP
CHECKED BY: WFM
JOB NO.: 19-9342
SCALE: N.T.S.

APPROVED BY:
7/8/20
G.A.F. ENGINEERING, INC.
REGISTERED PROFESSIONAL ENGINEER
STATE OF MASSACHUSETTS
LICENSE NO. 100000
WALTER W. MILLER
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF MASSACHUSETTS
LICENSE NO. 100000

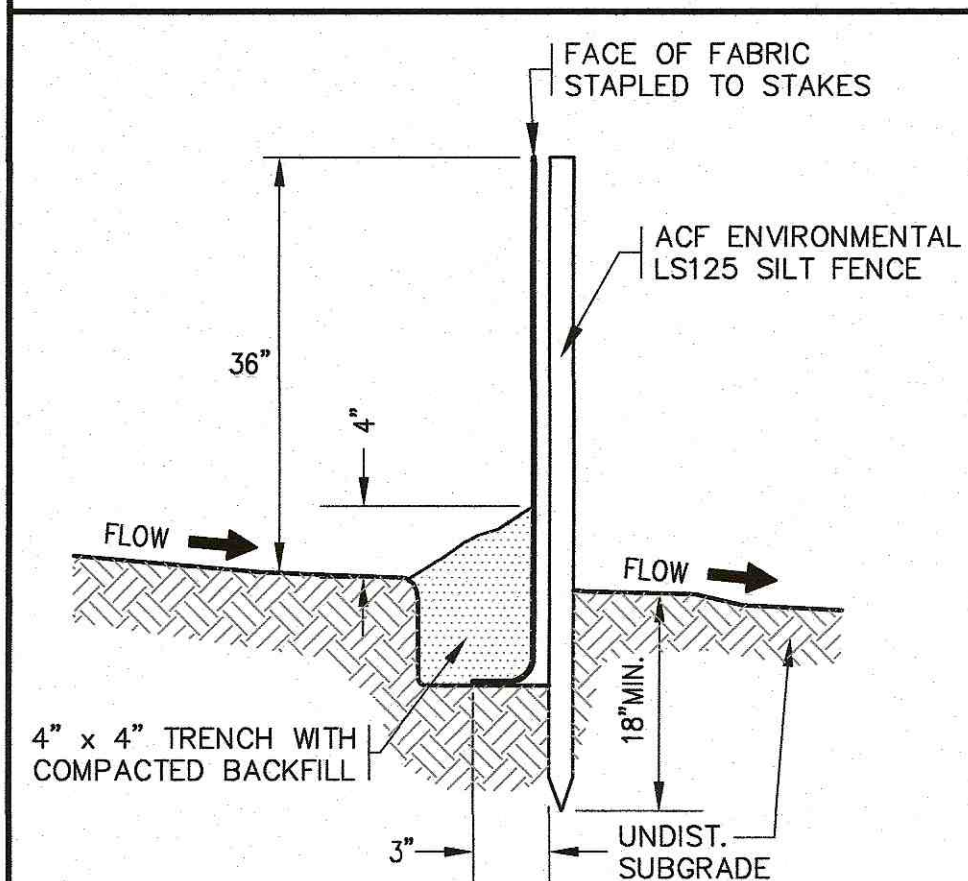
G.A.F. ENGINEERING, INC.
PROFESSIONAL ENGINEERS & LAND SURVEYORS
266 MAIN STREET - WAREHAM, MA 02571
TEL: (508) 295-6600 FAX: (508) 295-6634
E-MAIL: gaf@eng.com

PREPARED FOR:
MASTER MILLWORK, INC.
55 CHARLOTTE FURNACE ROAD WAREHAM, MA
41 MEETING HOUSE LANE, SUITE 11 SAGAMORE BEACH, MA

JOB NO.: 19-9342
DWG. 2 OF 10

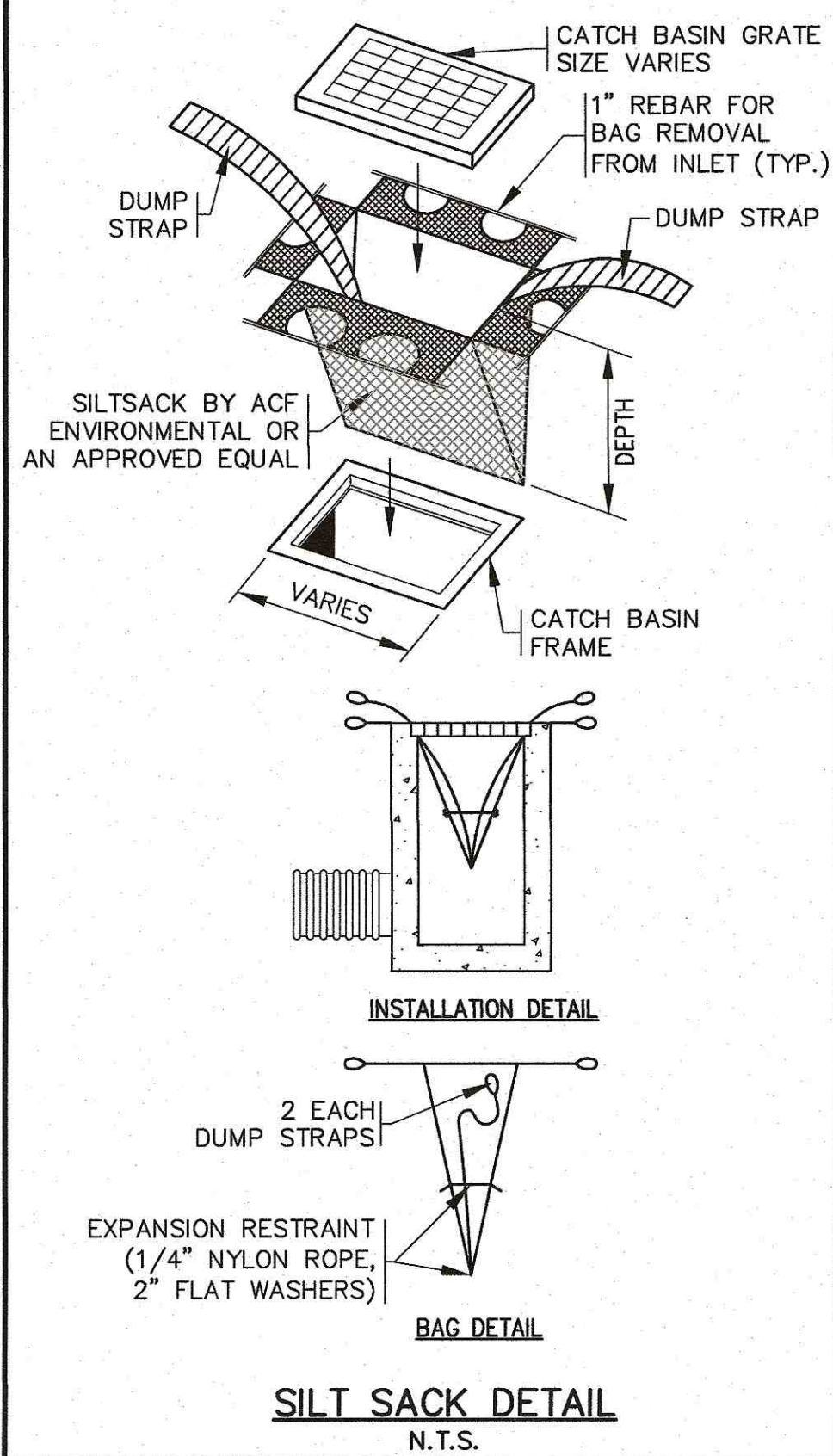
NOTES:

1. ALL DEBRIS FROM DEMOLITION INCLUDING PIPE REMOVAL, STONE/GRAVEL REMOVAL, TREE CLEARING, STUMPING, GRUBBING, ETC. SHALL BE REMOVED FROM THE SITE AND NOT STOCKPILED.
2. ALL EXISTING CATCH BASINS SHALL HAVE A TEMPORARY SILT SACK OR AN APPROVED EQUAL INSTALLED WITHIN PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REMOVE AND DISPOSE OF THE SILT SACKS AT THE COMPLETION OF CONSTRUCTION.
3. PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION.
4. EXISTING ROOF DRAIN PIPE TO BE RELOCATED. SEE SHEET 5 FOR LOCATIONS AND ELEVATIONS.
5. CONTRACTOR SHALL PROVIDE AND MAINTAIN STAKED SILTATION FENCING EROSION CONTROL BARRIER. SEE PLAN FOR LOCATIONS. THE EROSION CONTROL BARRIER IS SHOWN OFFSET FOR CLARITY. NO WORK SHALL BE OR IS PROPOSED TO BE PERFORMED BEYOND THE 10' LANDSCAPE BUFFER.
6. EXISTING DUMPSTER LOCATION TO REMAIN THE SAME.
7. PROTECT EXISTING CRUSHED STONE TRENCH DURING CONSTRUCTION. COVER TRENCHES WITH AN ADDITIONAL TEMPORARY LAYER OF FILTER FABRIC UNTIL THE COMPLETION OF CONSTRUCTION.
8. THE EXISTING FACILITY SIGN SHALL REMAIN.

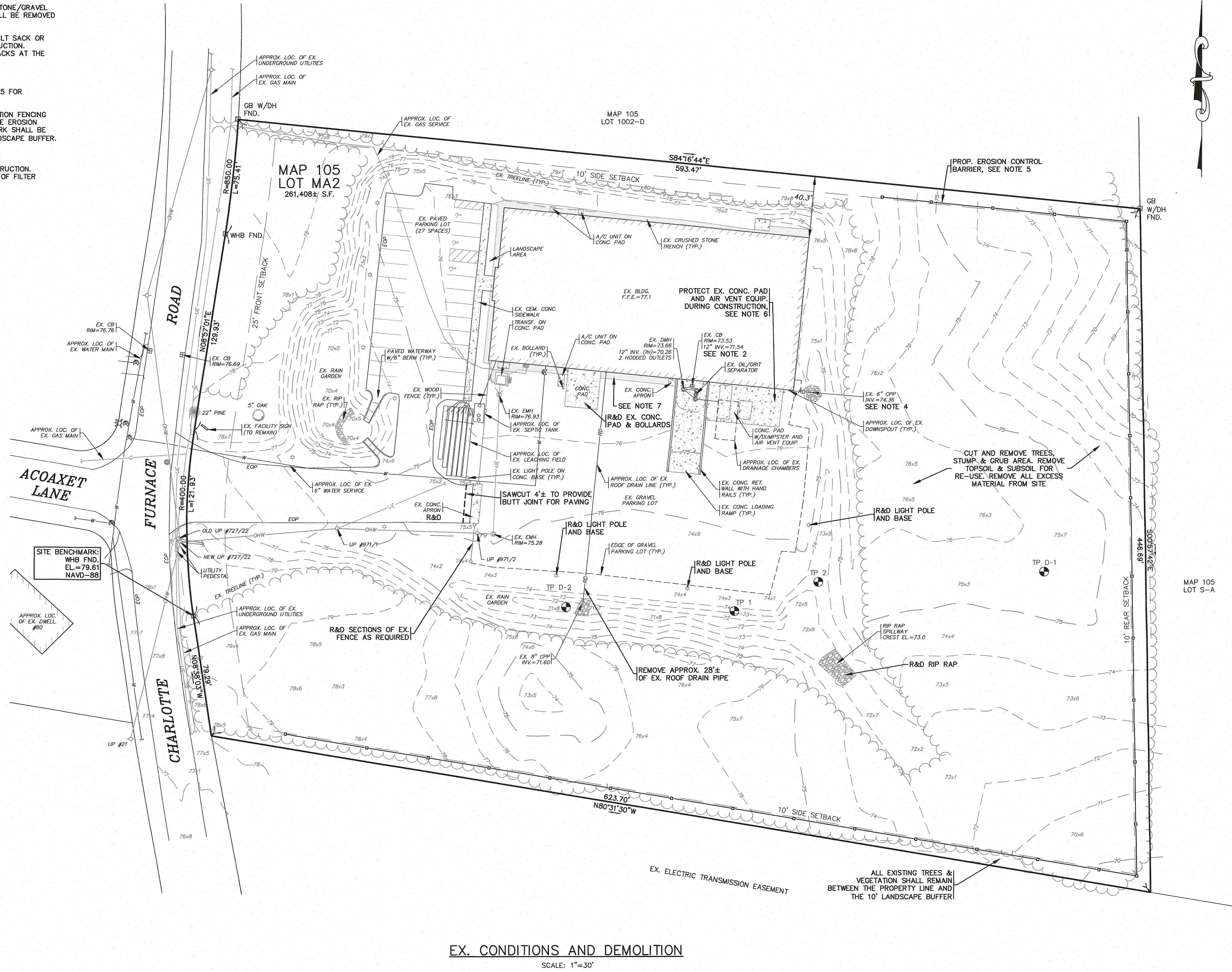


- NOTES:**
1. SILTATION FENCE SHALL BE ACF ENVIRONMENTAL LS125 SILT FENCE OR AN APPROVED EQUAL.
 2. SILTATION FENCING SHALL BE INSTALLED DOWNSLOPE OF ALL PROPOSED AND EXISTING DISTURBED AREAS, OR AS SHOWN ON THE PLANS.
 3. EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL VEGETATIVE OR STABILIZED COVER HAS BEEN FIRMLY ESTABLISHED.
 4. EROSION CONTROL MEASURES SHALL FOLLOW THE PERFORMANCE STANDARDS OF THE USDA SOIL CONSERVATION SERVICE, AND ANY APPLICABLE STATE/LOCAL CONSERVATION AUTHORITY.

EROSION CONTROL BARRIER
N.T.S.



SILT SACK DETAIL
N.T.S.

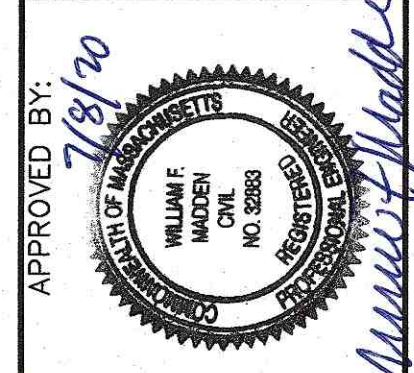


EX. CONDITIONS AND DEMOLITION

SCALE: 1"=30'
0 30 60 120

DATE: JULY 8, 2020
DRAWN BY: JMP
CHECKED BY: WFM
JOB NO.: 19-9342
SCALE: 1" = 30'

APPROVED BY:



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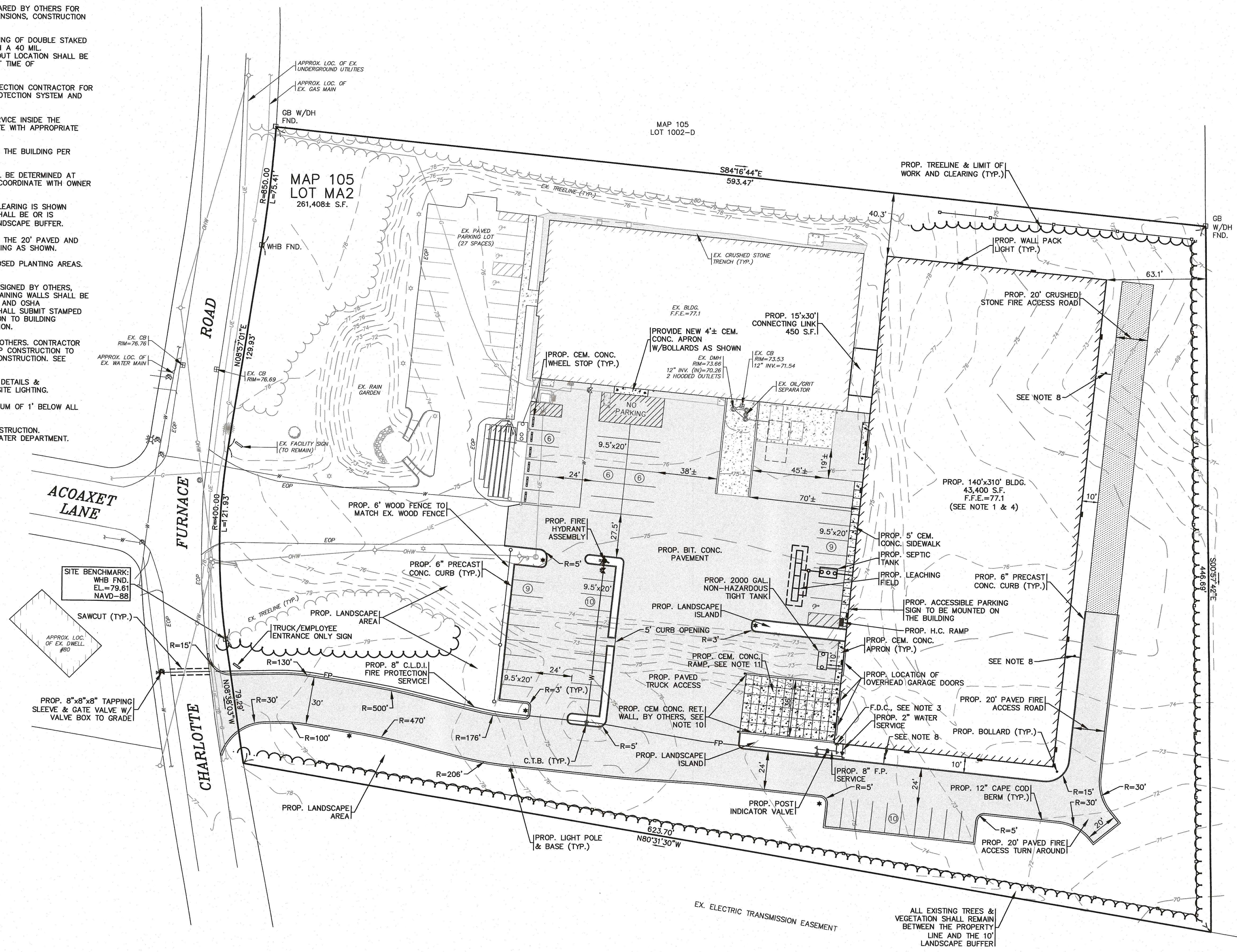
PREPARED FOR:
MASTER MILLWORK, INC.
41 MEETING HOUSE LANE, SUITE 11, SAGAMORE BEACH, MA

JOB NO.: 19-9342
DWG. 3 OF 10

PERMIT SET
(NOT FOR CONSTRUCTION)

NOTES:

- REFER TO A SET OF ARCHITECTURAL PLANS PREPARED BY OTHERS FOR ALL PROPOSED BUILDING & CONNECTING LINK DIMENSIONS, CONSTRUCTION NOTES AND DETAILS.
- CEMENT CONCRETE WASHOUT AREA SHALL BE A RING OF DOUBLE STAKED HAY BALES WITH SILTATION FENCE AND LINED WITH A 40 MIL. POLYETHYLENE BARRIER. SEE DETAIL. FINAL WASHOUT LOCATION SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR AT TIME OF CONSTRUCTION.
- CONTRACTOR TO COORDINATE WITH THE FIRE PROTECTION CONTRACTOR FOR ALL DETAILS ON THE PROPOSED BUILDING FIRE PROTECTION SYSTEM AND THE FIRE DEPARTMENT CONNECTION (F.D.C.).
- CONNECT TO THE EXISTING GAS AND ELECTRIC SERVICE INSIDE THE EXISTING BUILDING. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY COMPANIES.
- ACCESSIBLE PARKING SIGN SHALL BE MOUNTED ON THE BUILDING PER A.D.A. REGULATIONS & SPECIFICATIONS.
- FINAL TIGHT TANK SIZE AND SPECIFICATIONS SHALL BE DETERMINED AT THE TIME OF CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH OWNER AND PLUMBING ENGINEER.
- THE PROPOSED TREELINE & LIMIT OF WORK AND CLEARING IS SHOWN OFFSET IN SOME AREAS FOR CLARITY. NO WORK SHALL BE OR IS PROPOSED TO BE PERFORMED BEYOND THE 10' LANDSCAPE BUFFER.
- PROVIDE "NO PARKING FIRE LANE" SIGNAGE ALONG THE 20' PAVED AND CRUSHED STONE ACCESS ROAD AROUND THE BUILDING AS SHOWN.
- REFER TO THE LANDSCAPING PLAN FOR ALL PROPOSED PLANTING AREAS. ALL EXISTING LANDSCAPING SHALL REMAIN.
- PROPOSED CEMENT CONCRETE RETAINING WALLS DESIGNED BY OTHERS, CONTRACTOR SHALL COORDINATE WITH OWNER. RETAINING WALLS SHALL BE PROVIDED WITH SAFETY GUARDRAILS PER 780 CMR AND OSHA REGULATIONS AND SPECIFICATIONS. CONTRACTOR SHALL SUBMIT STAMPED SHOP DRAWINGS FOR RETAINING WALL CONSTRUCTION TO BUILDING DEPARTMENT FOR APPROVAL PRIOR TO CONSTRUCTION.
- PROPOSED CEMENT CONCRETE RAMP DESIGNED BY OTHERS. CONTRACTOR SHALL SUBMIT STAMPED SHOP DRAWINGS FOR RAMP CONSTRUCTION TO BUILDING DEPARTMENT FOR APPROVAL PRIOR TO CONSTRUCTION. SEE SHEET 5 FOR RAMP GRADING.
- REFER TO PLANS BY RAB LIGHTING FOR COMPLETE DETAILS & SPECIFICATIONS ON THE PROPOSED BUILDING AND SITE LIGHTING.
- WATER MAIN/SERVICE SHALL BE INSTALLED A MINIMUM OF 1' BELOW ALL PROPOSED DRAINAGE LINES.
- CONFIRM EXISTING WATER MAIN SIZE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH WAREHAM WATER DEPARTMENT.
- LOAM AND SEED ALL DISTURBED AREAS.



LAYOUT AND UTILITIES

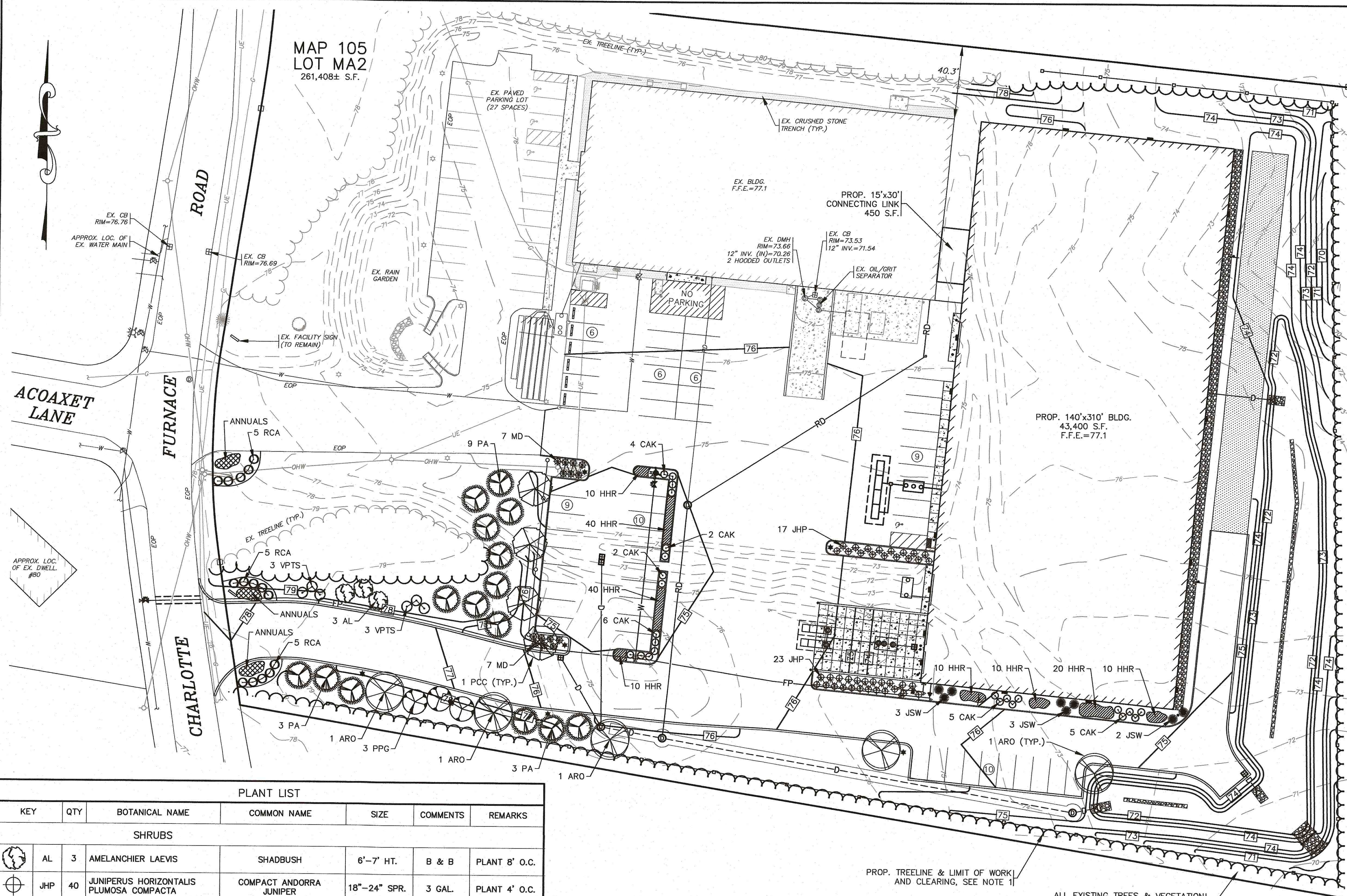
SCALE: 1"=30'



DATE: JULY 8, 2020		DRAWN BY: JMP		CHECKED BY: WFM		JOB NO.: 19-9342		SCALE: 1" = 30'	
APPROVED BY:		APPROVED BY:		APPROVED BY:		APPROVED BY:		APPROVED BY:	
G.A.F. ENGINEERING, INC.		G.A.F. ENGINEERING, INC.		G.A.F. ENGINEERING, INC.		G.A.F. ENGINEERING, INC.		G.A.F. ENGINEERING, INC.	
PROFESSIONAL ENGINEERS & LAND SURVEYORS		PROFESSIONAL ENGINEERS & LAND SURVEYORS		PROFESSIONAL ENGINEERS & LAND SURVEYORS		PROFESSIONAL ENGINEERS & LAND SURVEYORS		PROFESSIONAL ENGINEERS & LAND SURVEYORS	
266 MAIN STREET WAREHAM, MA 02571		266 MAIN STREET WAREHAM, MA 02571		266 MAIN STREET WAREHAM, MA 02571		266 MAIN STREET WAREHAM, MA 02571		266 MAIN STREET WAREHAM, MA 02571	
TEL: (508) 293-6000 FAX: (508) 295-6634		TEL: (508) 293-6000 FAX: (508) 295-6634		TEL: (508) 293-6000 FAX: (508) 295-6634		TEL: (508) 293-6000 FAX: (508) 295-6634		TEL: (508) 293-6000 FAX: (508) 295-6634	
E-MAIL: gaf@eng.com		E-MAIL: gaf@eng.com		E-MAIL: gaf@eng.com		E-MAIL: gaf@eng.com		E-MAIL: gaf@eng.com	
55 CHARLOTTE FURNACE ROAD WAREHAM, MA		55 CHARLOTTE FURNACE ROAD WAREHAM, MA		55 CHARLOTTE FURNACE ROAD WAREHAM, MA		55 CHARLOTTE FURNACE ROAD WAREHAM, MA		55 CHARLOTTE FURNACE ROAD WAREHAM, MA	
PREPARED FOR:		PREPARED FOR:		PREPARED FOR:		PREPARED FOR:		PREPARED FOR:	
MASTER MILLWORK, INC.		MASTER MILLWORK, INC.		MASTER MILLWORK, INC.		MASTER MILLWORK, INC.		MASTER MILLWORK, INC.	
41 MEETING HOUSE LANE, SUITE 11 SAGMORRE BEACH, MA		41 MEETING HOUSE LANE, SUITE 11 SAGMORRE BEACH, MA		41 MEETING HOUSE LANE, SUITE 11 SAGMORRE BEACH, MA		41 MEETING HOUSE LANE, SUITE 11 SAGMORRE BEACH, MA		41 MEETING HOUSE LANE, SUITE 11 SAGMORRE BEACH, MA	
JOB NO.: 19-9342		JOB NO.: 19-9342		JOB NO.: 19-9342		JOB NO.: 19-9342		JOB NO.: 19-9342	
DWG. 4 OF 10		DWG. 4 OF 10		DWG. 4 OF 10		DWG. 4 OF 10		DWG. 4 OF 10	
PERMIT SET (NOT FOR CONSTRUCTION)		PERMIT SET (NOT FOR CONSTRUCTION)		PERMIT SET (NOT FOR CONSTRUCTION)		PERMIT SET (NOT FOR CONSTRUCTION)		PERMIT SET (NOT FOR CONSTRUCTION)	

H:\CADD\DRAWINGS\2019\19-9342 (MASTER MILLWORK)\SHEET\DWG\19-9342 SITE PLAN.dwg

MAP 105
LOT MA2
261,408± S.F.



NOTE:

LANDSCAPE ARCHITECTURE BY: E.A. FULLER ASSOCIATES—LANDSCAPE ARCHITECTS
170 PLYMOUTH STREET, P.O. BOX 48
NORTH CARVER, MA 02355

PLANTING STANDARDS:

- THE LANDSCAPE CONTRACTOR SHALL FURNISH AND INSTALL AND/OR DIG, BALL, BURLAP, AND TRANSPLANT ALL PLANT MATERIALS LISTED ON THE PLANT SCHEDULE. BARE-ROOT IS TYPICALLY NOT PERMITTED FOR ANY TREE.
- PLANT MATERIALS SHALL CONFORM TO THE REQUIREMENTS DESCRIBED IN THE LATEST EDITION OF AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. PLANTS SHALL BE NURSERY GROWN.
- PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED IN THE PLANT SCHEDULE.
 - CALIPER MEASUREMENTS SHALL BE TAKEN SIX (6) INCHES ABOVE GRADE FOR TREES UNDER FOUR (4) INCHES IN DIAMETER AND TWELVE (12) INCHES ABOVE GRADE FOR TREES FOUR (4) INCHES IN DIAMETER AND LARGER.
 - MINIMUM BRANCHING HEIGHT FOR ALL SHADE TREES SHALL BE SIX (6) FEET.
 - MINIMUM SIZE FOR SHADE TREES SHALL BE TWO AND ONE HALF (2.5) INCHES IN DIAMETER AND TWELVE (12) FEET IN HEIGHT.
 - MINIMUM SIZE FOR EVERGREEN TREES SHALL BE BETWEEN SIX (6) AND EIGHT (8) FEET IN HEIGHT
 - MINIMUM SIZE FOR SHRUBS SHALL BE THREE (3) FEET IN HEIGHT
- A PROFESSIONAL HORTICULTURIST/NURSERYMAN SHALL BE CONSULTED TO DETERMINE THE PROPER TIME TO MOVE AND INSTALL PLANT MATERIAL SO THAT DISTRESS TO THE PLANT IS MINIMIZED. PLANTING OF DECIDUOUS MATERIAL MAY BE CONTINUED DURING WINTER MONTHS PROVIDED THERE IS NO FROST IN THE GROUND AND FROST-FREE TOPSOIL PLANTING MIXTURES ARE USED.
- A LANDSCAPE CONTRACTOR SHALL EXCAVATE ALL PLANT PITS, VINE PITS, HEDGE TRENCHES, AND SHRUB BEDS AS FOLLOWS:
 - ALL PITS SHALL BE GENERALLY CIRCULAR IN OUTLINE, WITH VERTICAL SIDES. THE TREE PIT SHALL BE DEEP ENOUGH TO ALLOW ONE-EIGHTH (1/8) OF THE BALL TO BE ABOVE THE EXISTING GRADE. PLANTS SHALL REST ON UNDISTURBED EXISTING SOIL OR WELL COMPACTED BACKFILL ON EVERY SIDE, THE TREE PITS MUST BE A MINIMUM OF 2 TIMES THE ROOT BALL DIAMETER.
 - IF AREAS ARE DESIGNATED AS SHRUB BEDS OR HEDGE TRENCHES, THEY SHALL BE CULTIVATED TO AT LEAST EIGHTEEN (18) INCHES IN DEPTH. AREAS DESIGNATED FOR GROUND COVERS AND VINES SHALL BE CULTIVATED TO AT LEAST TWELVE (12) INCHES IN DEPTH.
- EACH TREE, SHRUB, OR VINE SHALL BE PRUNED IN AN APPROPRIATE MANNER IN ACCORDANCE WITH ACCEPTED STANDARD PRACTICE.
- ALL TRENCHES AND SHRUB BEDS SHALL BE EDGED AND CULTIVATED TO THE LINES SHOWN ON THE DRAWING. THE AREAS AROUND ISOLATED PLANTS SHALL BE EDGED AND CULTIVATED TO THE FULL DIAMETER OF THE PIT. SOIL THAT HAS BEEN REMOVED AND STACKED SHALL BE USED TO TRIM THE EDGES OF ALL EXCAVATED AREAS TO THE NEAT LINES OF THE PLANT PIT SAUCERS, THE EDGE OF SHRUB AREAS, HEDGE TRENCHES AND VINE POCKETS.
- AFTER CULTIVATION, ALL PLANT MATERIALS SHALL BE MULCHED WITH A LAYER BETWEEN TWO (2) AND THREE (3) INCHES DEEP OF HEMLOCK / SPRUCE MULCH OVER THE ENTIRE AREA OF THE BED OR SAUCER.
- A TWO (2) YEAR GUARANTEE SHALL BE PROVIDED ON ALL NEW PLANT MATERIAL. IF ANY TREE OR SHRUB DIES WITHIN THIS PERIOD OF TIME, IT SHALL BE REPLACED.
- ALL AREAS THAT ARE NOT LANDSCAPED SHALL BE LOAMED AND SEEDED.

NOTES:

- THE PROPOSED TREELINE & LIMIT OF WORK AND CLEARING IS SHOWN OFFSET IN SOME AREAS FOR CLARITY. NO WORK SHALL BE OR IS PROPOSED TO BE PERFORMED BEYOND THE 10' LANDSCAPE BUFFER.

PLANT LIST						
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS	REMARKS
SHRUBS						
AL	3	AMELANCHIER LAEVIS	SHADBUSH	6"-7" HT.	B & B	PLANT 8' O.C.
JHP	40	JUNIPERUS HORIZONTALIS PLUMOSA COMPACTA	COMPACT ANDORRA JUNIPER	18"-24" SPR.	3 GAL.	PLANT 4' O.C.
JSW	8	JUNIPERUS SABINA 'WICHITA BLUE'	WICHITA BLUE JUNIPER	6"-7" HT.	B & B	PLANT 5' O.C.
MD	14	MICROBIOTA DECUSSATA	SIBERIAN CARPET CYPRESS	18"-24" SPR.	3 GAL.	PLANT 3' O.C.
RCA	15	RHODODENDRON CATAWBIENSE 'ALBA'	WHITE CATAWBA RHODODENDRON	30"-36" HT.	B & B	PLANT 5' O.C.
VPTS	6	VIBURNUM Plicatum tomentosum "SHASTA"	SHASTA DOUBLEFILE VIBURNUM	36" HT.	5 GAL. OR B & B	PLANT 5' O.C.
SHADE & ORNAMENTAL TREES						
ARO	5	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3" CAL.	B & B	PLANT 35' O.C.
PA	15	PICEA ABIES	NORWAY SPRUCE	7'-8" HT.	B & B	PLANT 15' O.C.
PPG	3	PICEA PUNGENS 'GLAUCA'	COLORADO BLUE SPRUCE	7'-8" HT.	B & B	PLANT 15' O.C.
PCC	4	PYRUS CALLERYANA 'CHANTICLEER'	CLEVELAND SELECT CALLERY PEAR	3" CAL.	B & B	PLANT AS SHOWN
ORNAMENTAL GRASSES & PERENNIALS						
CAK	24	CALAMAGROSTIS ACUTIFLORA "KARL FOERSTER"	FEATHER REED GRASS	1 GAL.	36" HT.	18" O.C.
HHR	150	HEMEROCALIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	1 GAL.	18" HT.	18" O.C.

LANDSCAPING PLAN
SCALE: 1"=30'
0 30 60 120

DATE: JULY 8, 2020
DRAWN BY: JMP
CHECKED BY: WFM
JOB NO.: 19-9342
SCALE: 1" = 30'

APPROVED BY: [Signature]

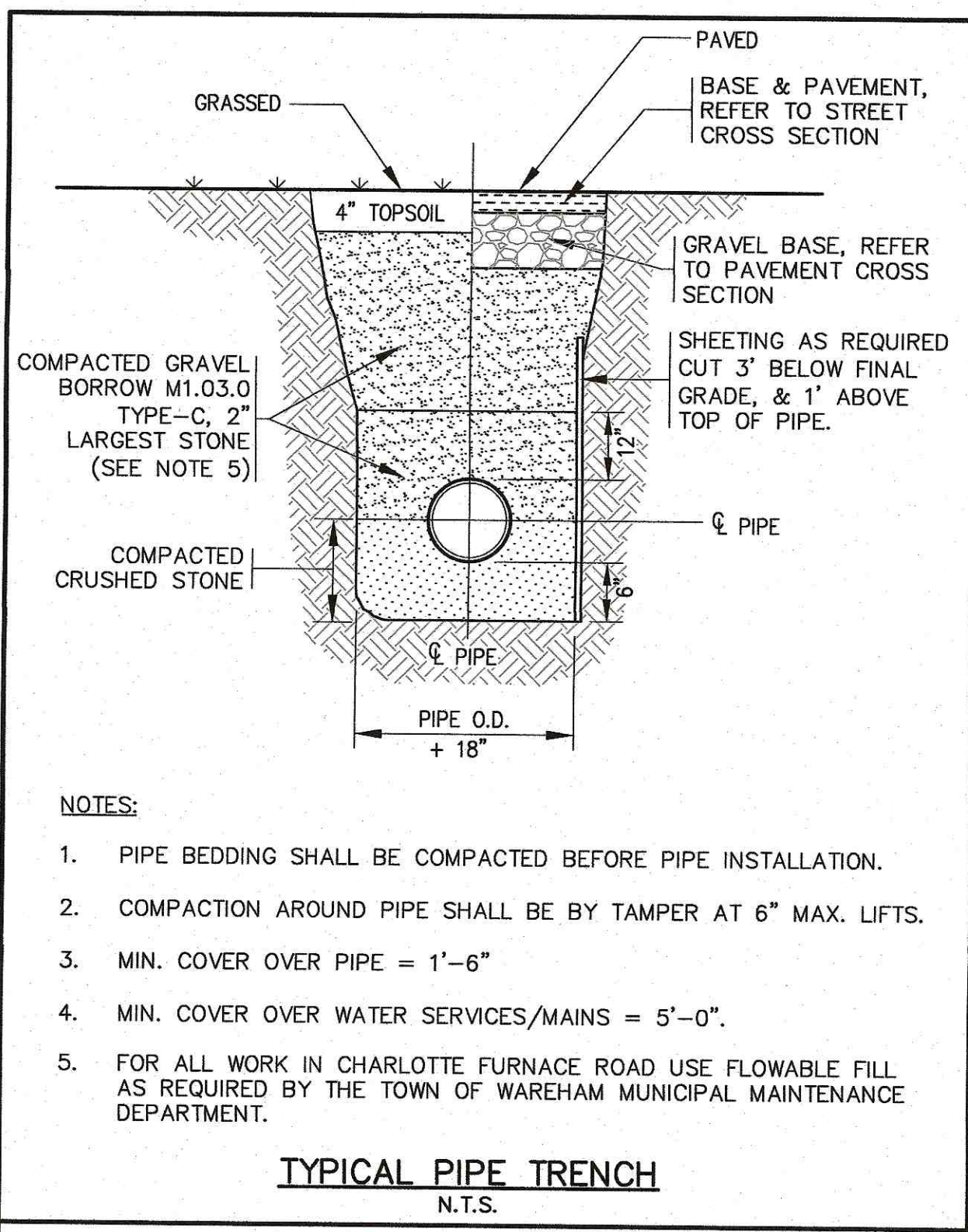
G.A.F. ENGINEERING, INC.
PROFESSIONAL ENGINEERS & LAND SURVEYORS
266 MAIN STREET - WAREHAM, MA 02571
TEL: (508) 295-6600 FAX: (508) 295-6634
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REGISTERED PROFESSIONAL ENGINEER

PREPARED FOR:
MASTER MILLWORK, INC.
41 MEETING HOUSE LANE, SUITE 11 SAGAMORE BEACH, MA

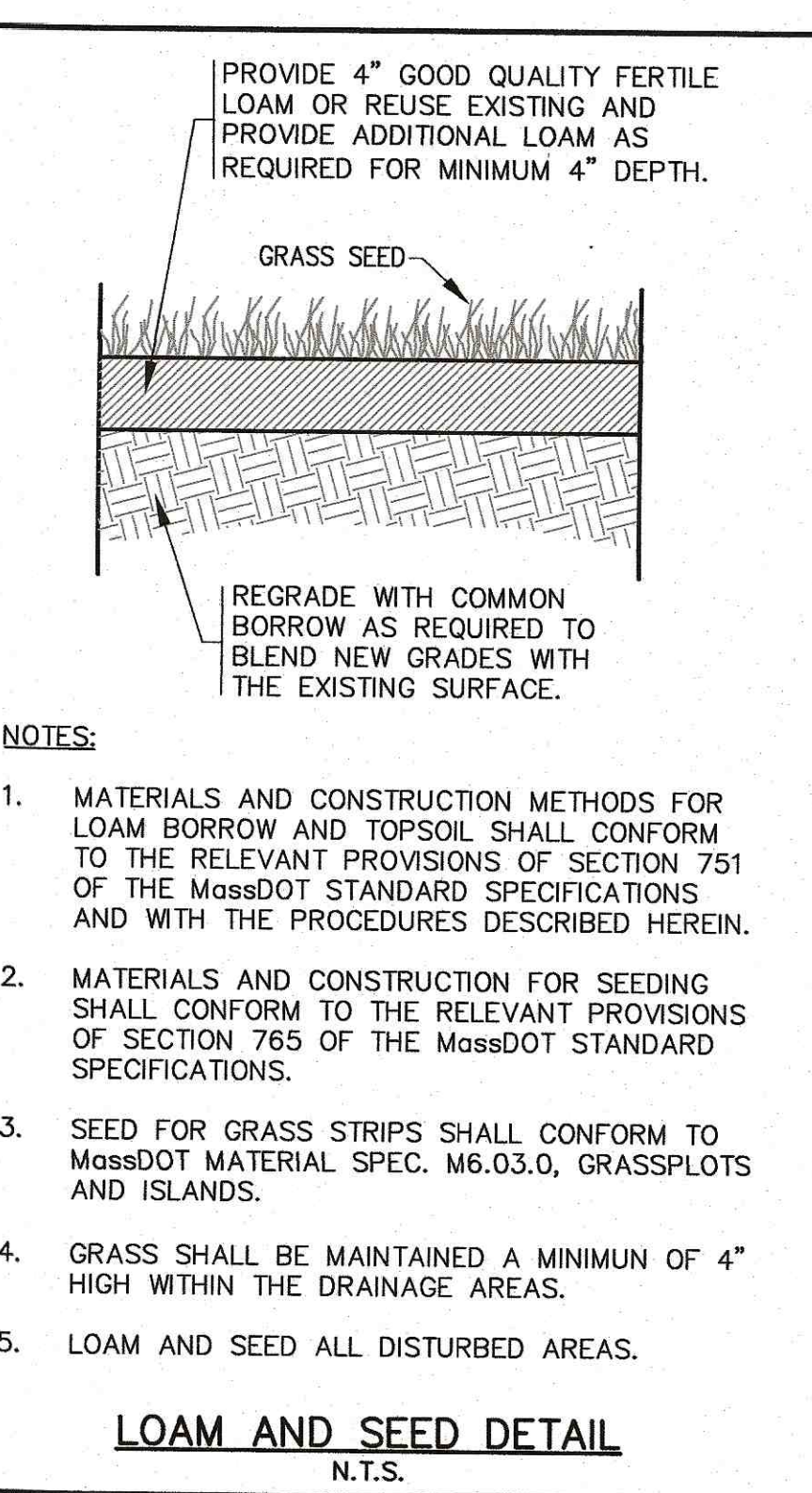
SITE DEVELOPMENT PLAN
LANDSCAPING PLAN

JOB NO.: 19-9342
DWG. 6 OF 10



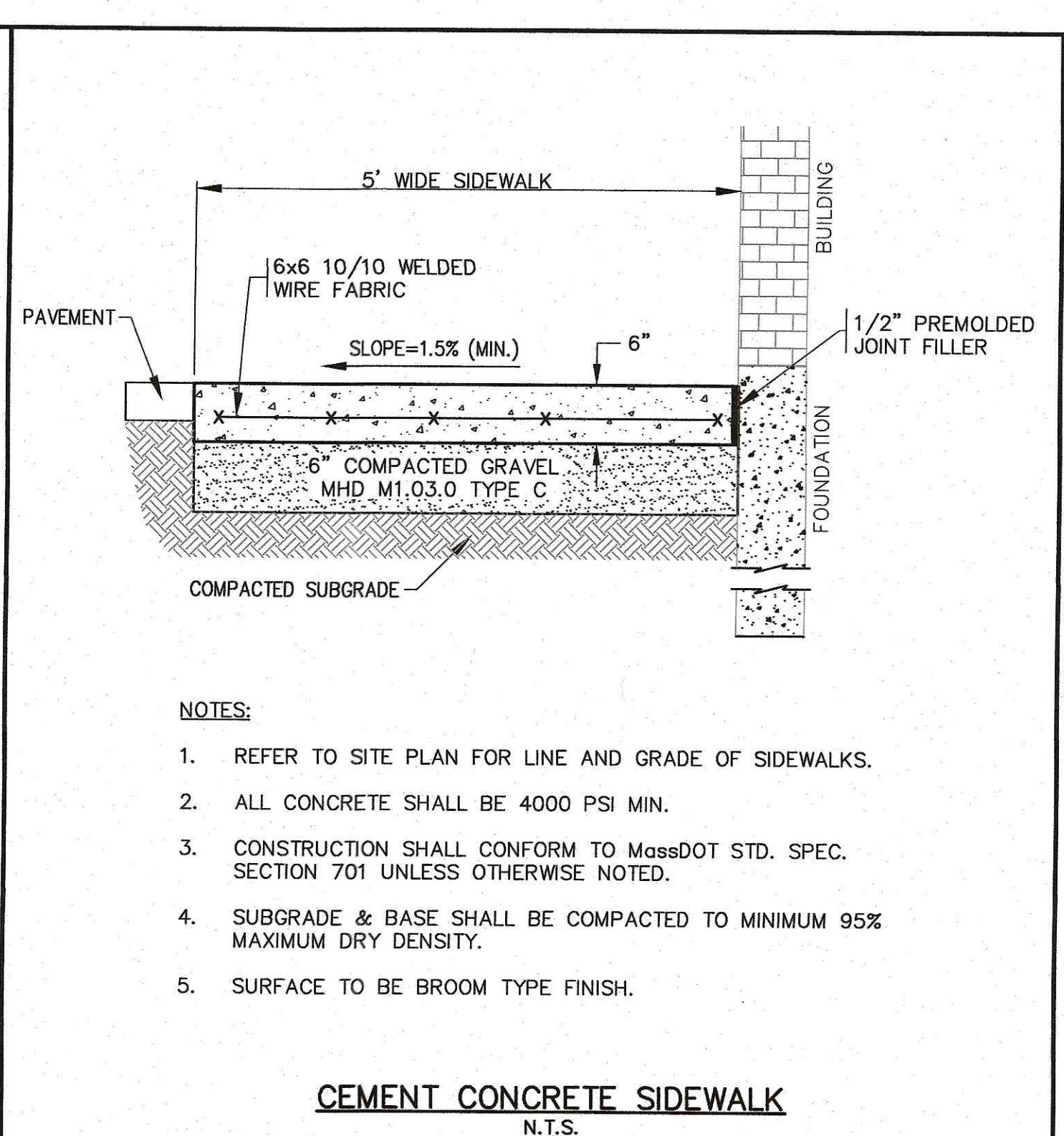
- NOTES:**
- PIPE BEDDING SHALL BE COMPACTED BEFORE PIPE INSTALLATION.
 - COMPACTION AROUND PIPE SHALL BE BY TAMPER AT 6" MAX. LIFTS.
 - MIN. COVER OVER PIPE = 1'-6"
 - MIN. COVER OVER WATER SERVICES/MAINS = 5'-0"
 - FOR ALL WORK IN CHARLOTTE FURNACE ROAD USE FLOWABLE FILL AS REQUIRED BY THE TOWN OF WAREHAM MUNICIPAL MAINTENANCE DEPARTMENT.

TYPICAL PIPE TRENCH
N.T.S.



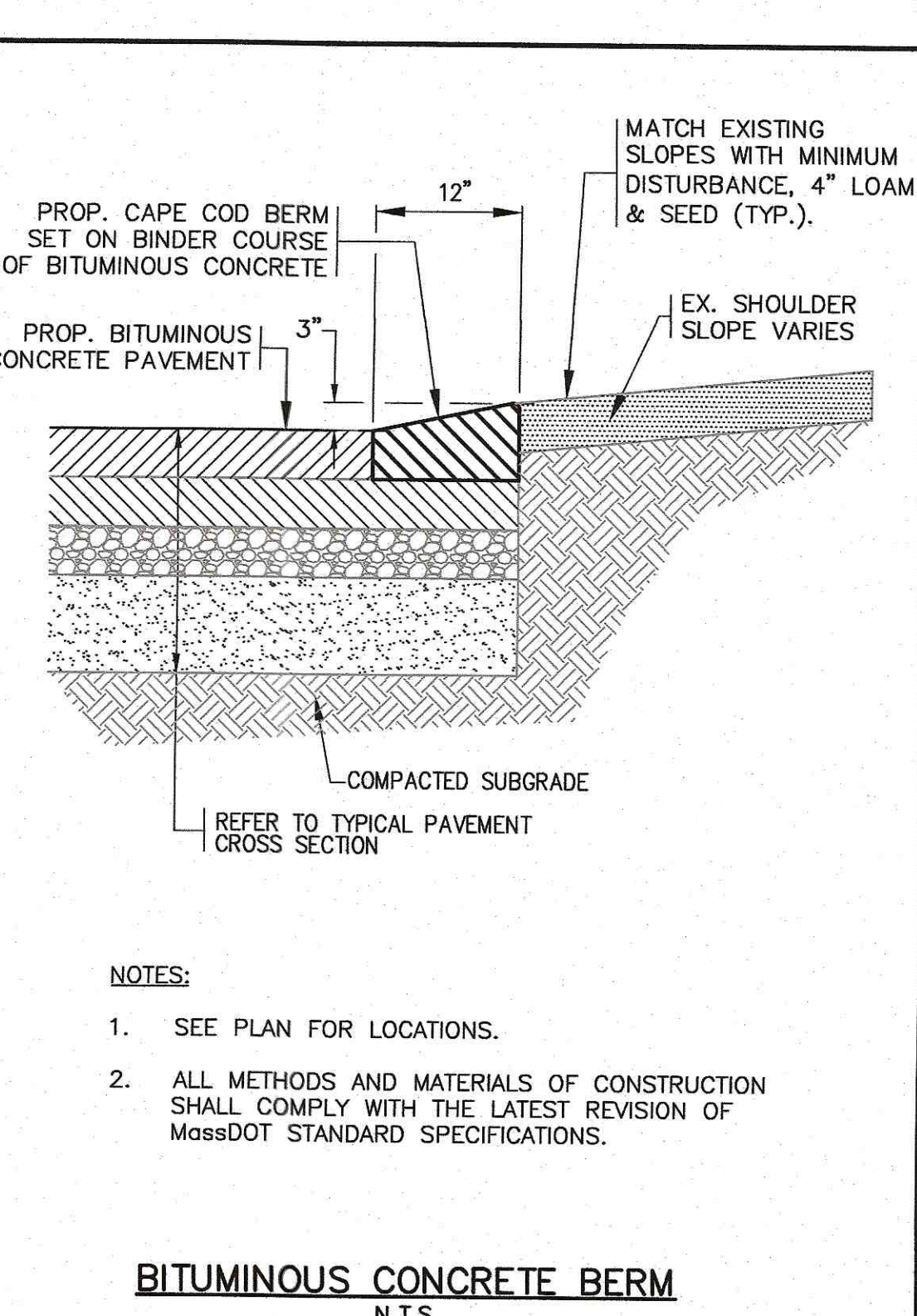
- NOTES:**
- MATERIALS AND CONSTRUCTION METHODS FOR LOAM BORROW AND TOPSOIL SHALL CONFORM TO THE RELEVANT PROVISIONS OF SECTION 751 OF THE MassDOT STANDARD SPECIFICATIONS AND WITH THE PROCEDURES DESCRIBED HEREIN.
 - MATERIALS AND CONSTRUCTION FOR SEEDING SHALL CONFORM TO THE RELEVANT PROVISIONS OF SECTION 765 OF THE MassDOT STANDARD SPECIFICATIONS.
 - SEED FOR GRASS STRIPS SHALL CONFORM TO MassDOT MATERIAL SPEC. M6.03.0, GRASSPLOTS AND ISLANDS.
 - GRASS SHALL BE MAINTAINED A MINIMUM OF 4" HIGH WITHIN THE DRAINAGE AREAS.
 - LOAM AND SEED ALL DISTURBED AREAS.

LOAM AND SEED DETAIL
N.T.S.



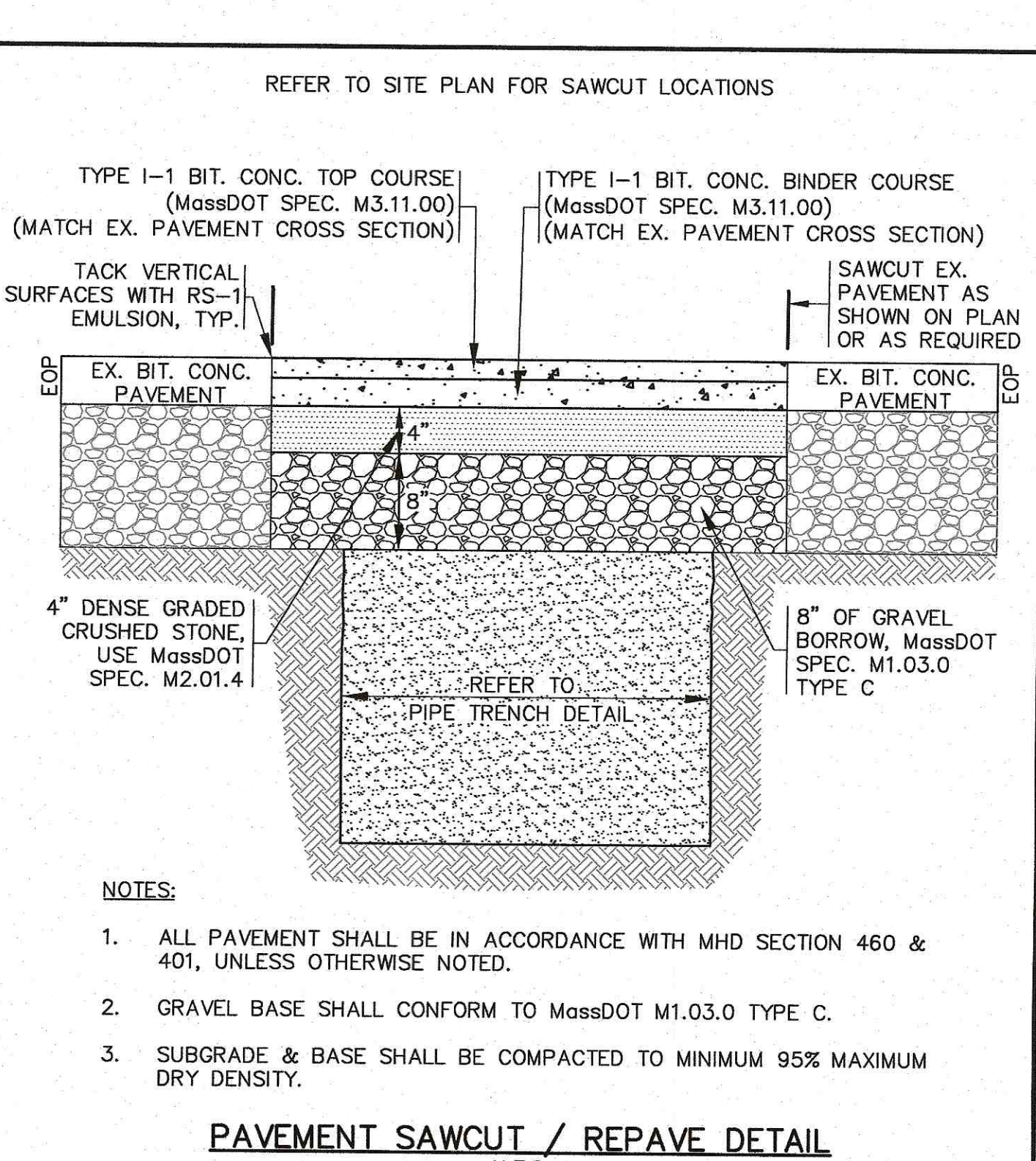
- NOTES:**
- REFER TO SITE PLAN FOR LINE AND GRADE OF SIDEWALKS.
 - ALL CONCRETE SHALL BE 4000 PSI MIN.
 - CONSTRUCTION SHALL CONFORM TO MassDOT STD. SPEC. SECTION 701 UNLESS OTHERWISE NOTED.
 - SUBGRADE & BASE SHALL BE COMPACTED TO MINIMUM 95% MAXIMUM DRY DENSITY.
 - SURFACE TO BE BROOM TYPE FINISH.

CEMENT CONCRETE SIDEWALK
N.T.S.



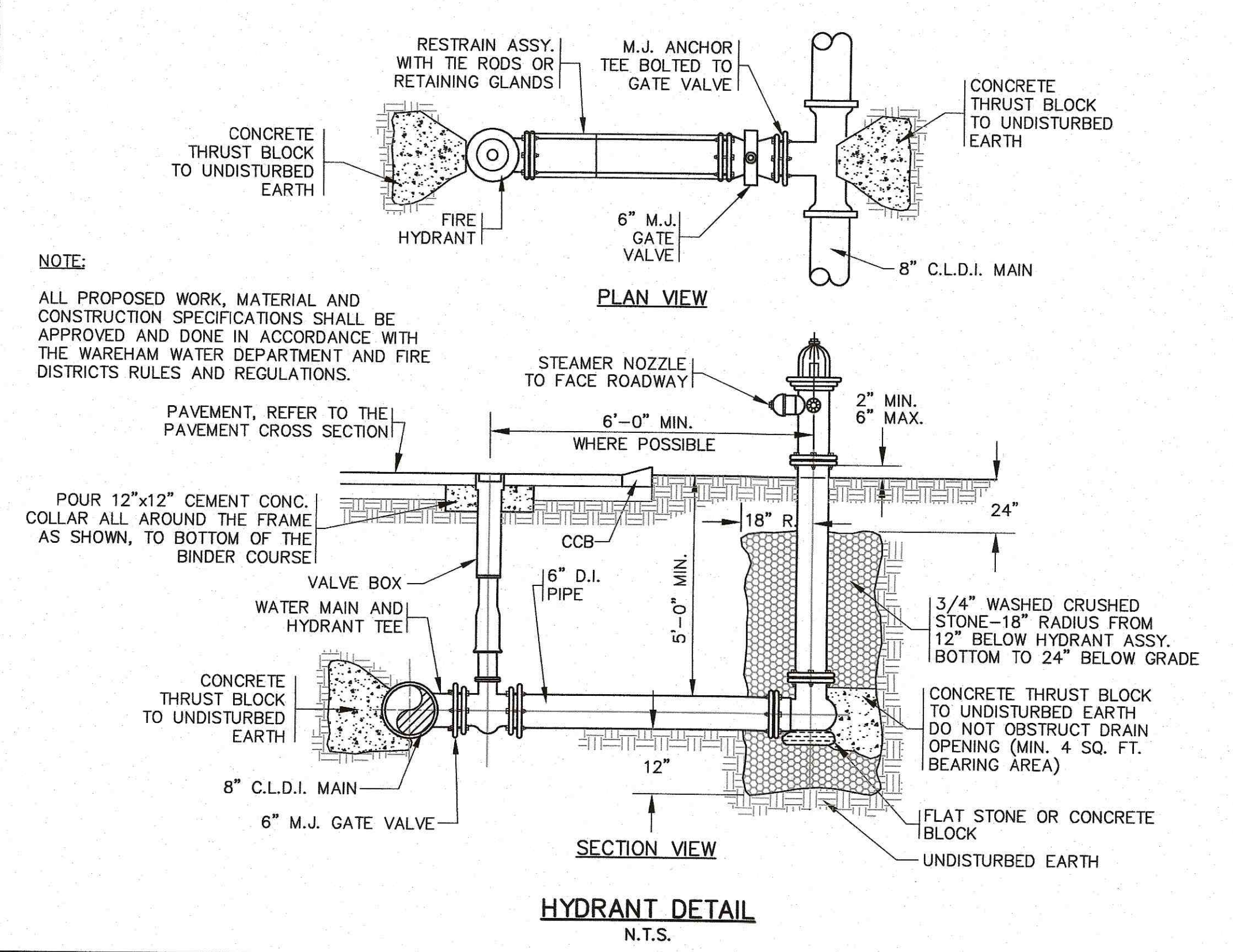
- NOTES:**
- SEE PLAN FOR LOCATIONS.
 - ALL METHODS AND MATERIALS OF CONSTRUCTION SHALL COMPLY WITH THE LATEST REVISION OF MassDOT STANDARD SPECIFICATIONS.

BITUMINOUS CONCRETE BERM
N.T.S.



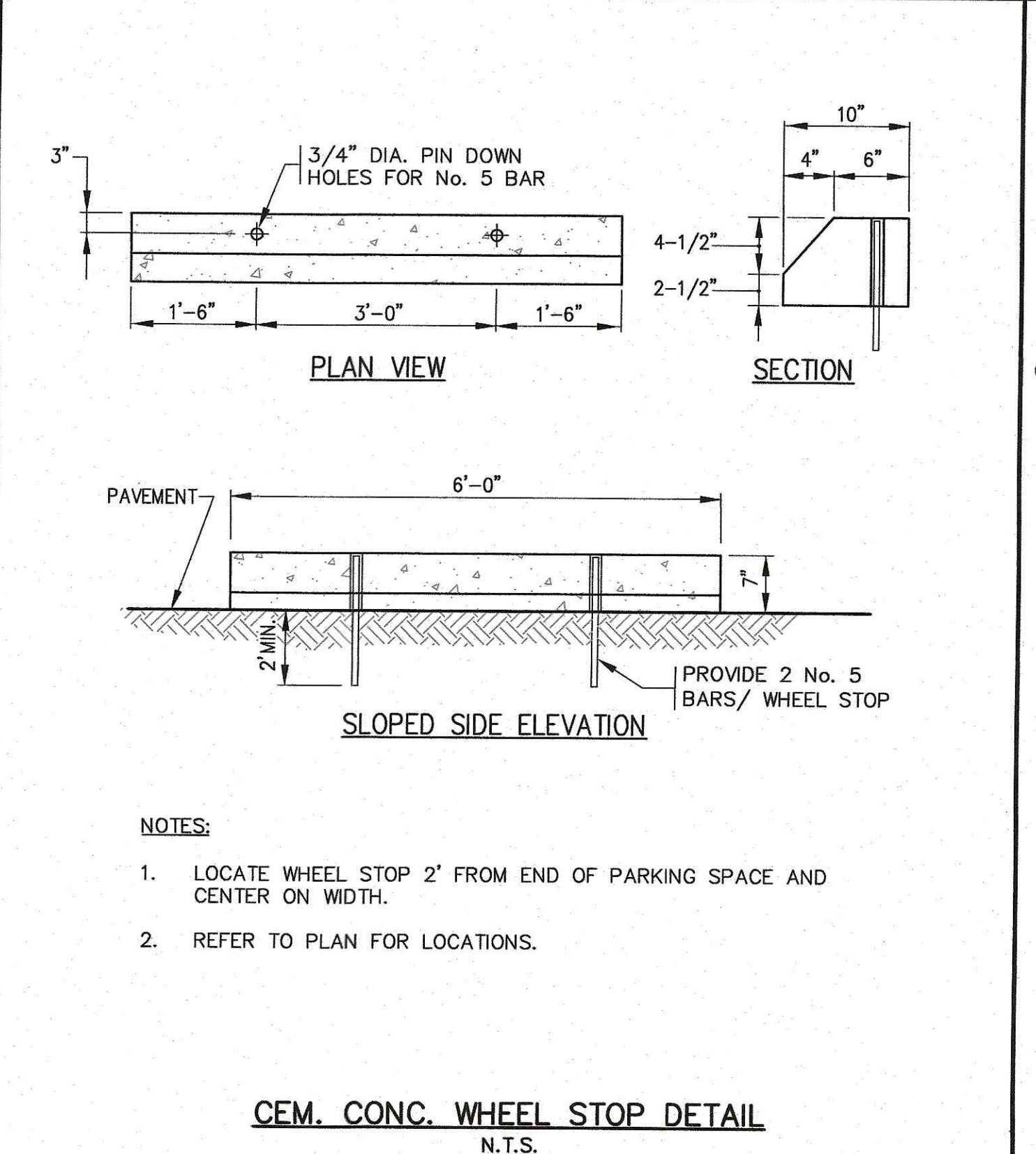
- NOTES:**
- ALL PAVEMENT SHALL BE IN ACCORDANCE WITH MHD SECTION 460 & 401, UNLESS OTHERWISE NOTED.
 - GRAVEL BASE SHALL CONFORM TO MassDOT M1.03.0 TYPE C.
 - SUBGRADE & BASE SHALL BE COMPACTED TO MINIMUM 95% MAXIMUM DRY DENSITY.

PAVEMENT SAWCUT / REPAVE DETAIL
N.T.S.



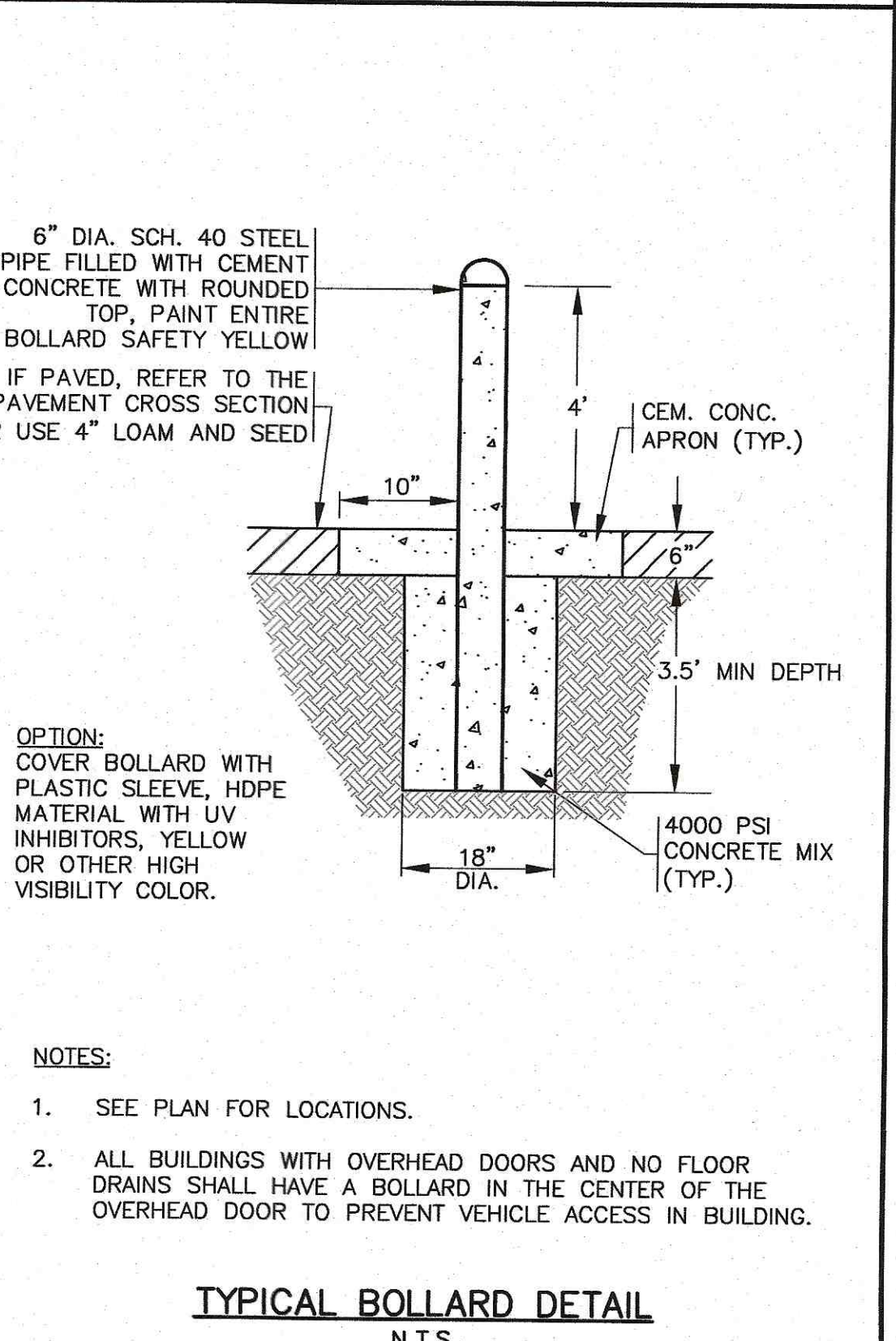
- NOTE:**
- ALL PROPOSED WORK, MATERIAL AND CONSTRUCTION SPECIFICATIONS SHALL BE APPROVED AND DONE IN ACCORDANCE WITH THE WAREHAM WATER DEPARTMENT AND FIRE DISTRICTS RULES AND REGULATIONS.

HYDRANT DETAIL
N.T.S.



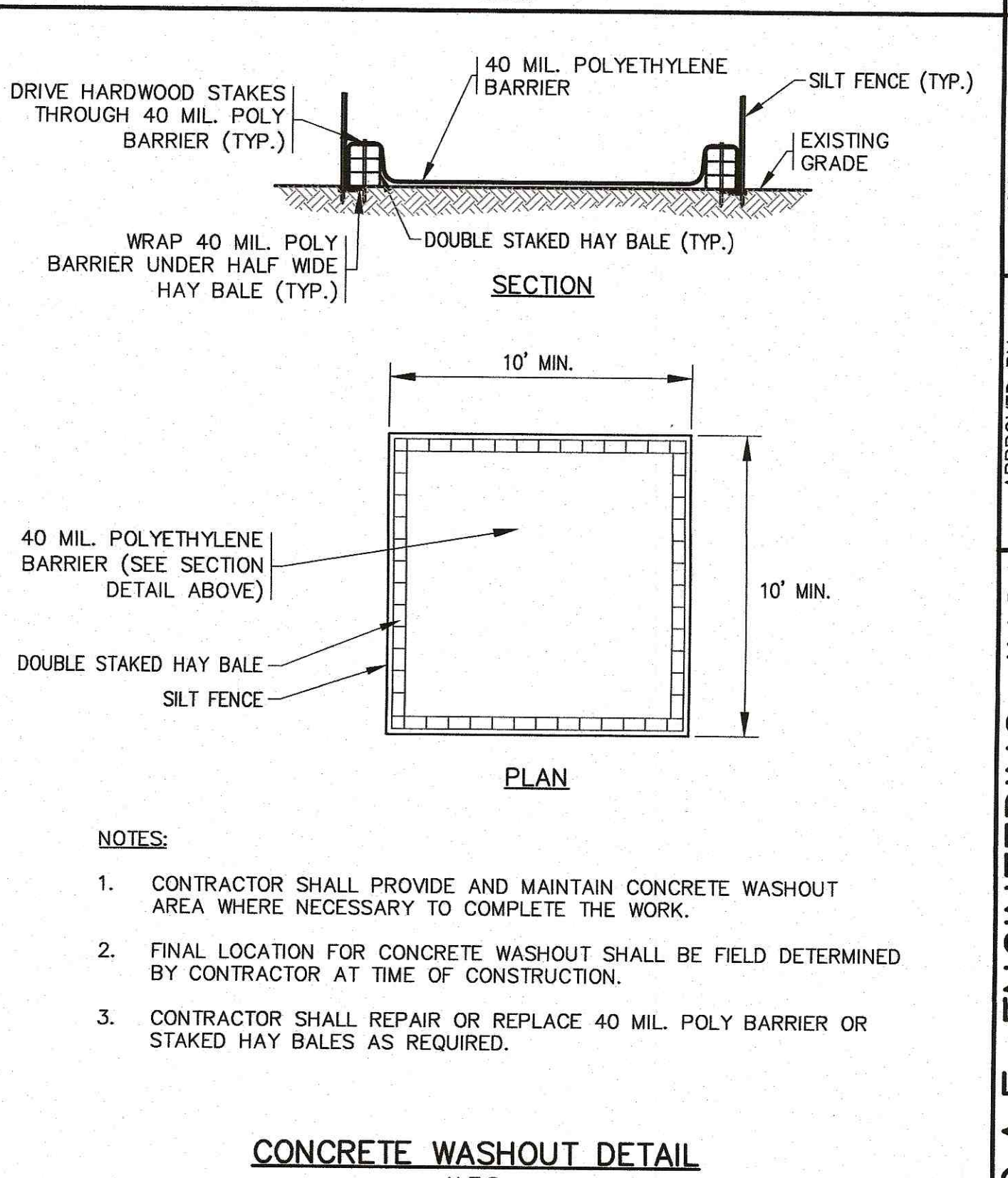
- NOTES:**
- LOCATE WHEEL STOP 2' FROM END OF PARKING SPACE AND CENTER ON WIDTH.
 - REFER TO PLAN FOR LOCATIONS.

CEM. CONC. WHEEL STOP DETAIL
N.T.S.



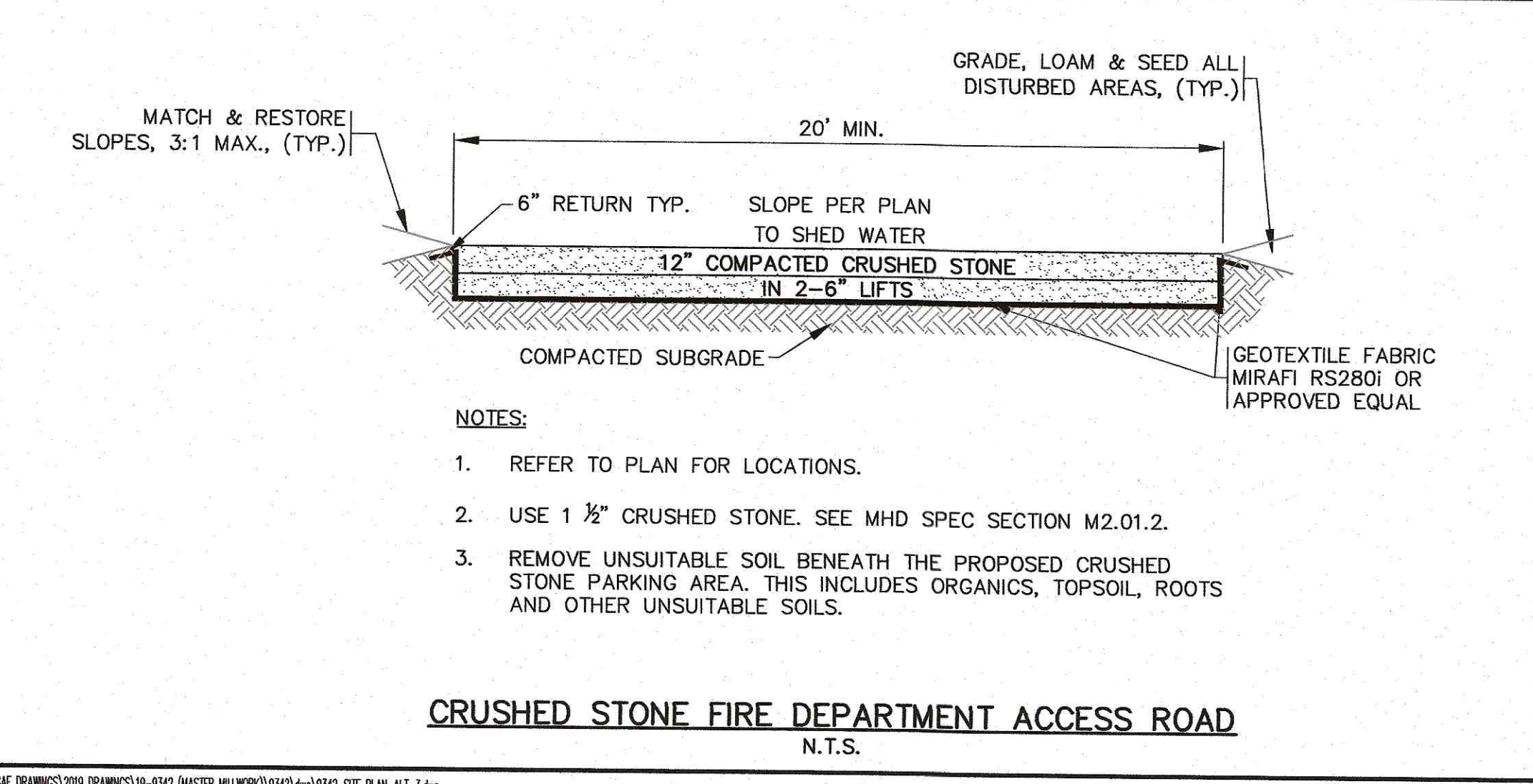
- OPTION:**
COVER BOLLARD WITH PLASTIC SLEEVE, HDPE MATERIAL WITH UV INHIBITORS, YELLOW OR OTHER HIGH VISIBILITY COLOR.
- NOTES:**
- SEE PLAN FOR LOCATIONS.
 - ALL BUILDINGS WITH OVERHEAD DOORS AND NO FLOOR DRAINS SHALL HAVE A BOLLARD IN THE CENTER OF THE OVERHEAD DOOR TO PREVENT VEHICLE ACCESS IN BUILDING.

TYPICAL BOLLARD DETAIL
N.T.S.



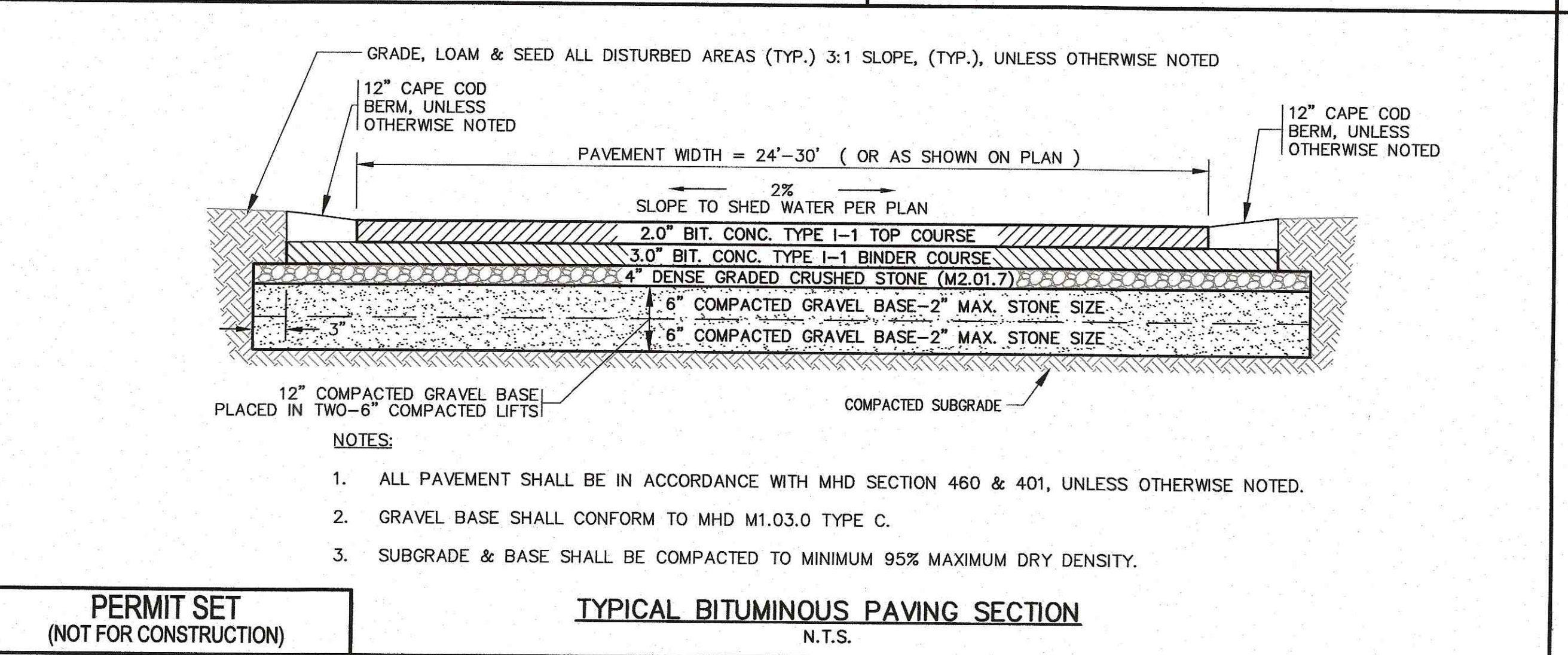
- NOTES:**
- CONTRACTOR SHALL PROVIDE AND MAINTAIN CONCRETE WASHOUT AREA WHERE NECESSARY TO COMPLETE THE WORK.
 - FINAL LOCATION FOR CONCRETE WASHOUT SHALL BE FIELD DETERMINED BY CONTRACTOR AT TIME OF CONSTRUCTION.
 - CONTRACTOR SHALL REPAIR OR REPLACE 40 MIL. POLY BARRIER OR STAKED HAY BALES AS REQUIRED.

CONCRETE WASHOUT DETAIL
N.T.S.



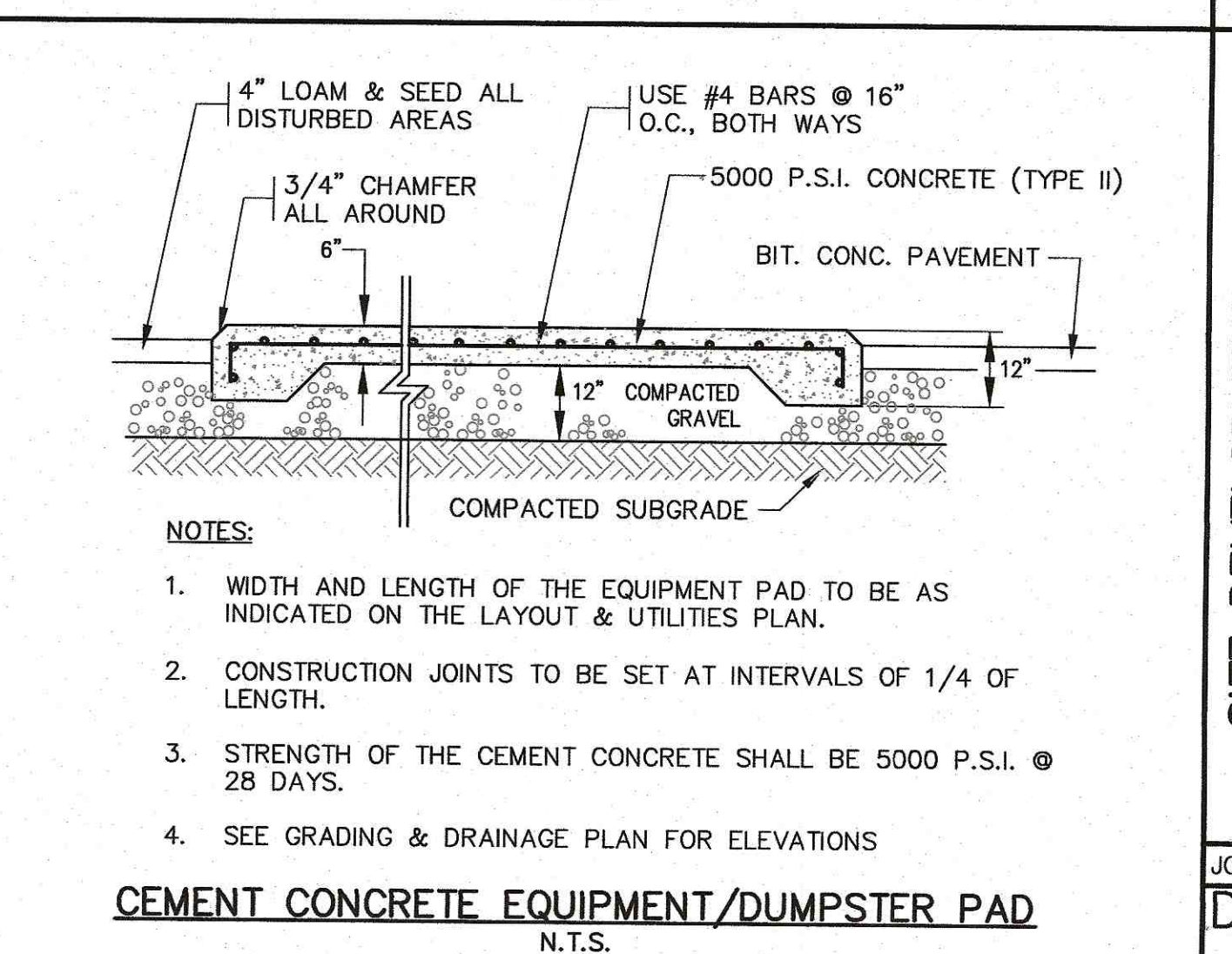
- NOTES:**
- REFER TO PLAN FOR LOCATIONS.
 - USE 1 1/2" CRUSHED STONE. SEE MHD SPEC SECTION M2.01.2.
 - REMOVE UNSUITABLE SOIL BENEATH THE PROPOSED CRUSHED STONE PARKING AREA. THIS INCLUDES ORGANICS, TOPSOIL, ROOTS AND OTHER UNSUITABLE SOILS.

CRUSHED STONE FIRE DEPARTMENT ACCESS ROAD
N.T.S.



- NOTES:**
- ALL PAVEMENT SHALL BE IN ACCORDANCE WITH MHD SECTION 460 & 401, UNLESS OTHERWISE NOTED.
 - GRAVEL BASE SHALL CONFORM TO MHD M1.03.0 TYPE C.
 - SUBGRADE & BASE SHALL BE COMPACTED TO MINIMUM 95% MAXIMUM DRY DENSITY.

TYPICAL BITUMINOUS PAVING SECTION
N.T.S.



- NOTES:**
- WIDTH AND LENGTH OF THE EQUIPMENT PAD TO BE AS INDICATED ON THE LAYOUT & UTILITIES PLAN.
 - CONSTRUCTION JOINTS TO BE SET AT INTERVALS OF 1/4 OF LENGTH.
 - STRENGTH OF THE CEMENT CONCRETE SHALL BE 5000 P.S.I. @ 28 DAYS.
 - SEE GRADING & DRAINAGE PLAN FOR ELEVATIONS

CEMENT CONCRETE EQUIPMENT/DUMPSTER PAD
N.T.S.

REV.	DATE	BY	APP'D	DESCRIPTION

DATE: JULY 8, 2020
 DRAWN BY: JMP
 CHECKED BY: WFM
 JOB NO.: 19-9342
 SCALE: N.T.S.

APPROVED BY: *[Signature]*

G.A.F. ENGINEERING, INC.
 PROFESSIONAL ENGINEERS & LAND SURVEYORS
 266 MAIN STREET - WAREHAM, MA 02571
 TEL: (508) 295-6600 FAX: (508) 295-6634
 E-MAIL: gaf@gaf-eng.com

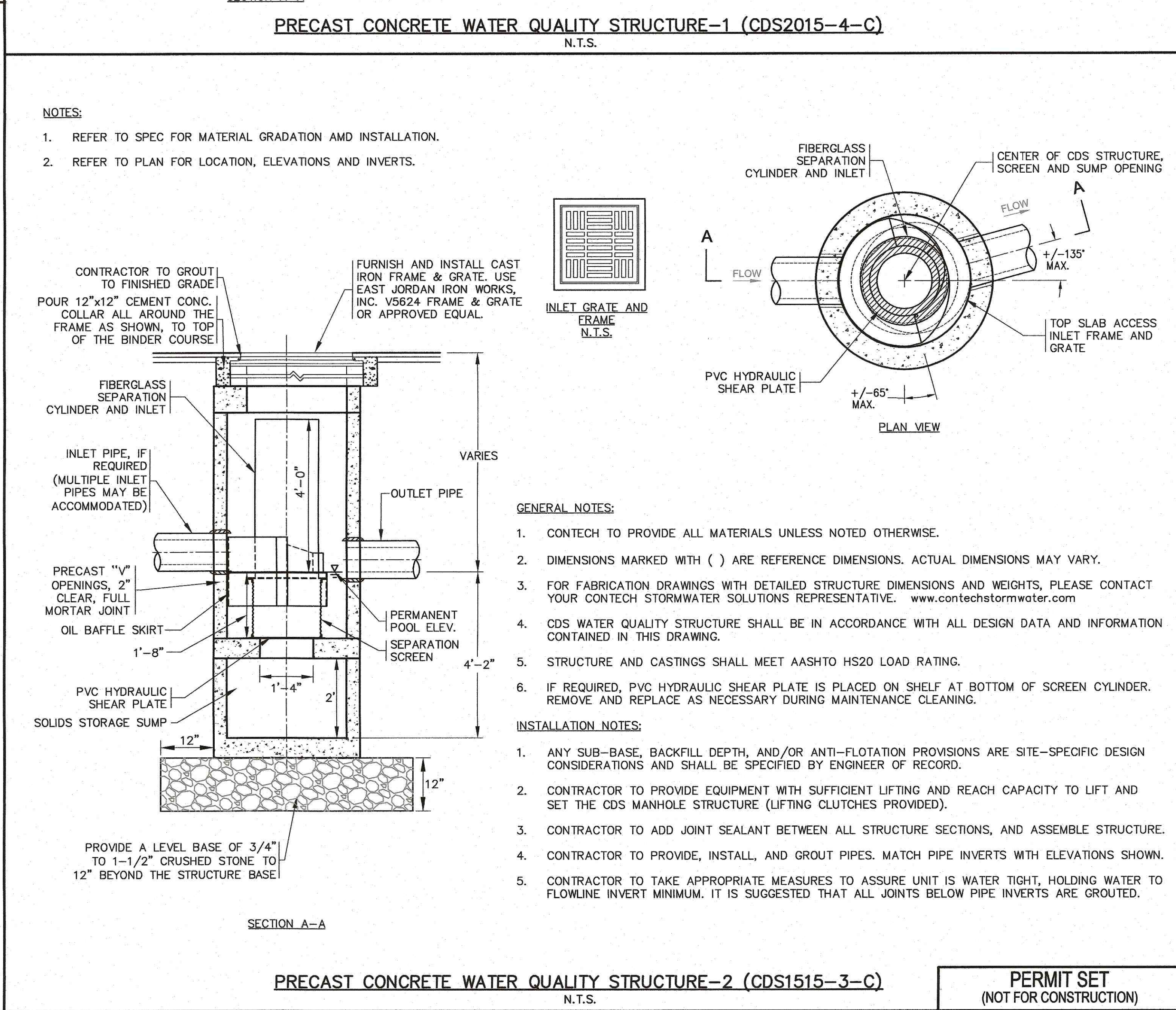
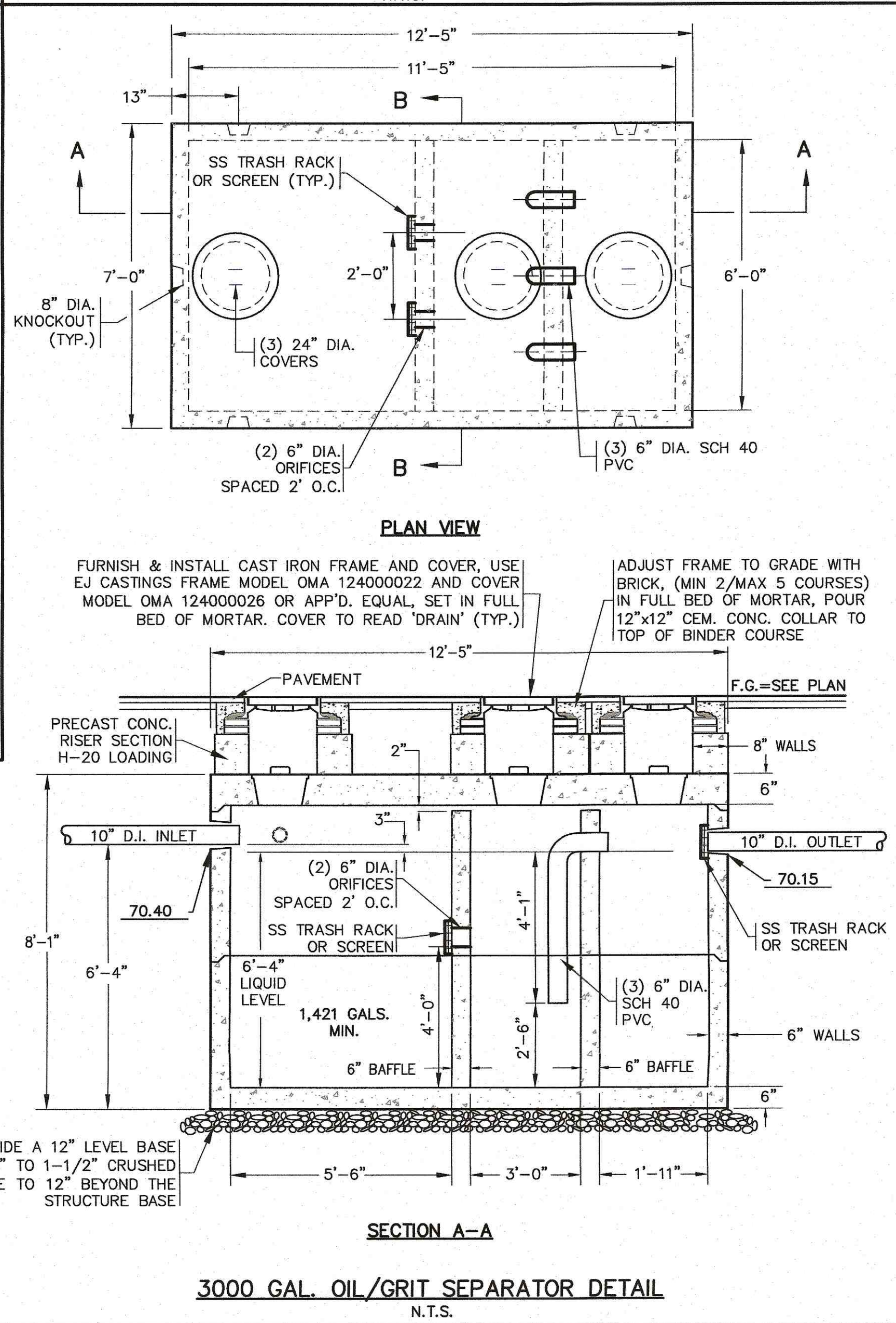
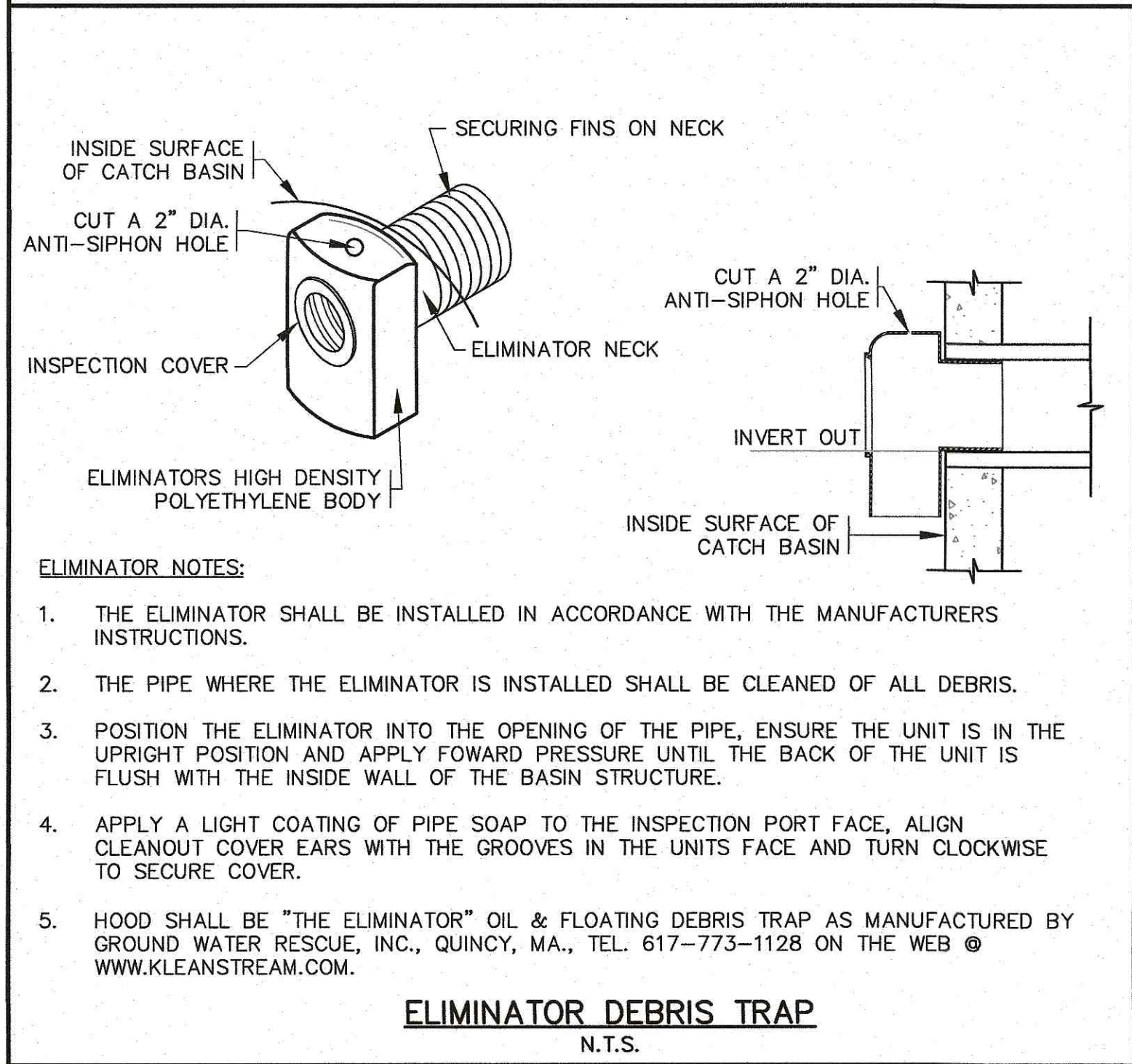
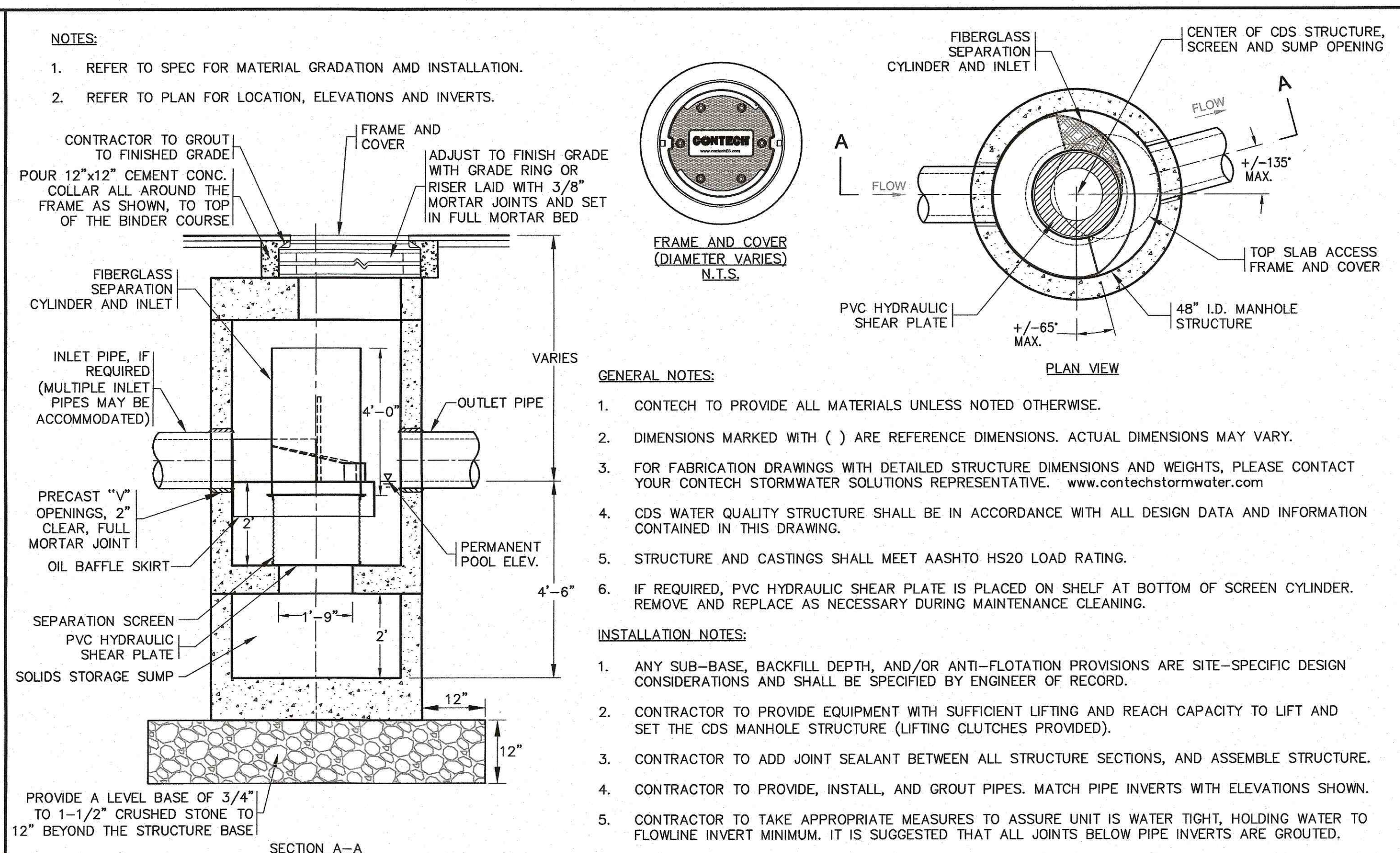
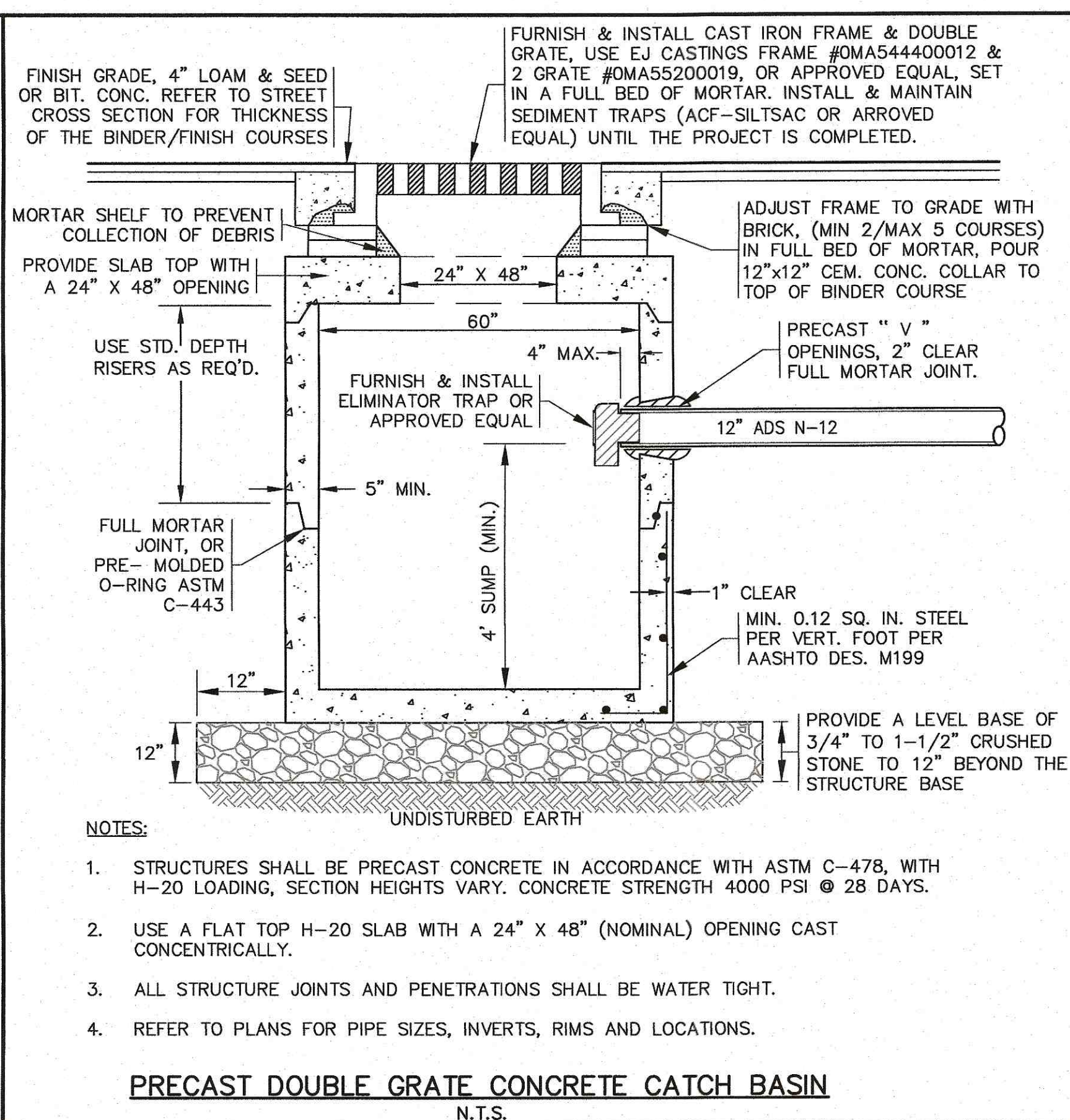
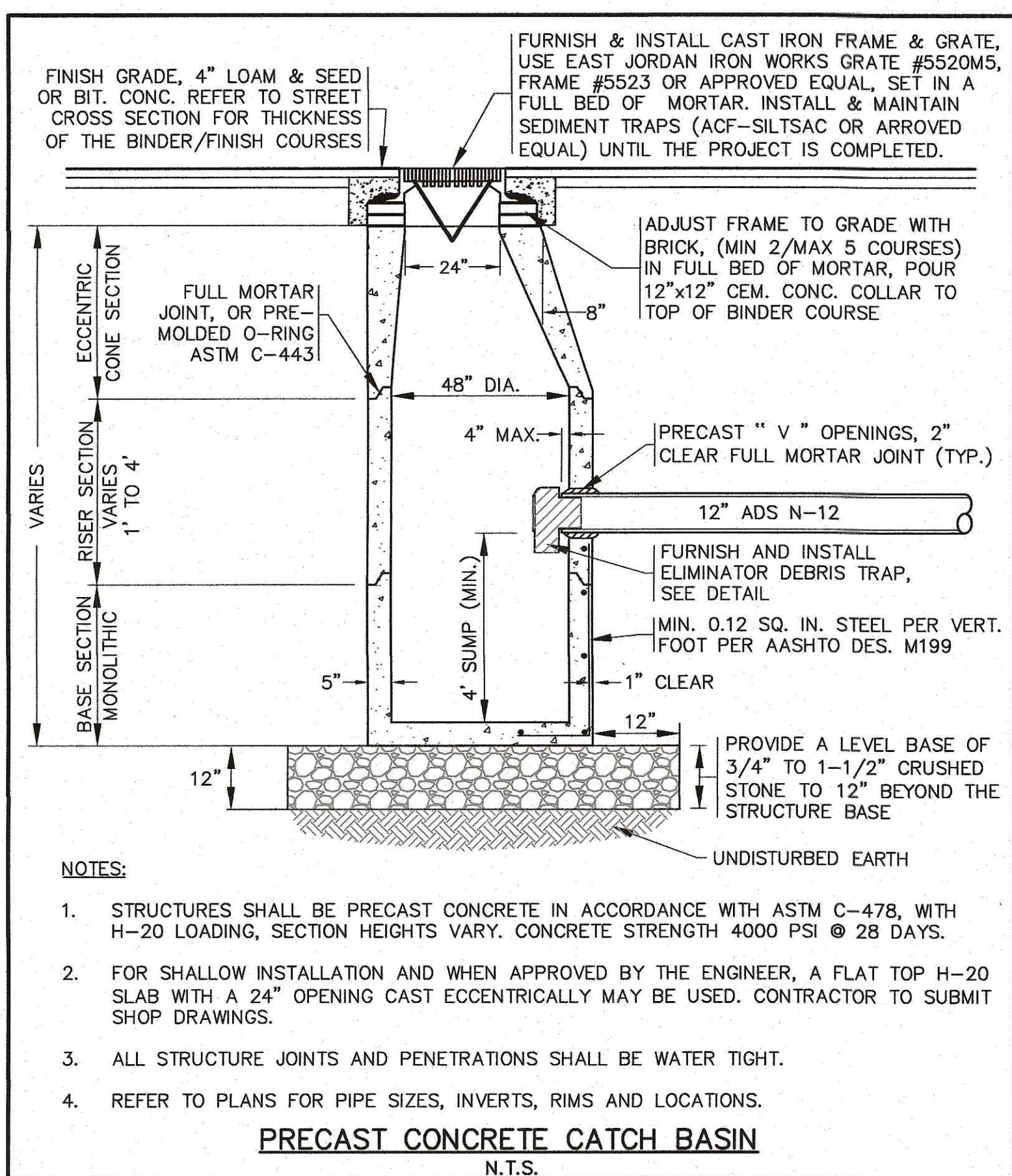
MASTER MILLWORK, INC.
 41 MEETING HOUSE LANE, SUITE 11, SACONNET BEACH, MA

**SITE DEVELOPMENT PLAN
 DETAIL SHEET 1**

PREPARED FOR:
 55 CHARLOTTE FURNACE ROAD
 WAREHAM, MA

JOB NO.: 19-9342
 DWG. 7 OF 10

R:\GAF DRAWINGS\2019 DRAWINGS\19-9342 (MASTER MILLWORK)\6347.dwg SITE PLAN.dwg



DATE	DRAWN BY	CHECKED BY	JOB NO.	SCALE	REV.	DATE	BY	APP'D	DESCRIPTION
JULY 8, 2020	JMP	WFM	19-9342	N.T.S.					

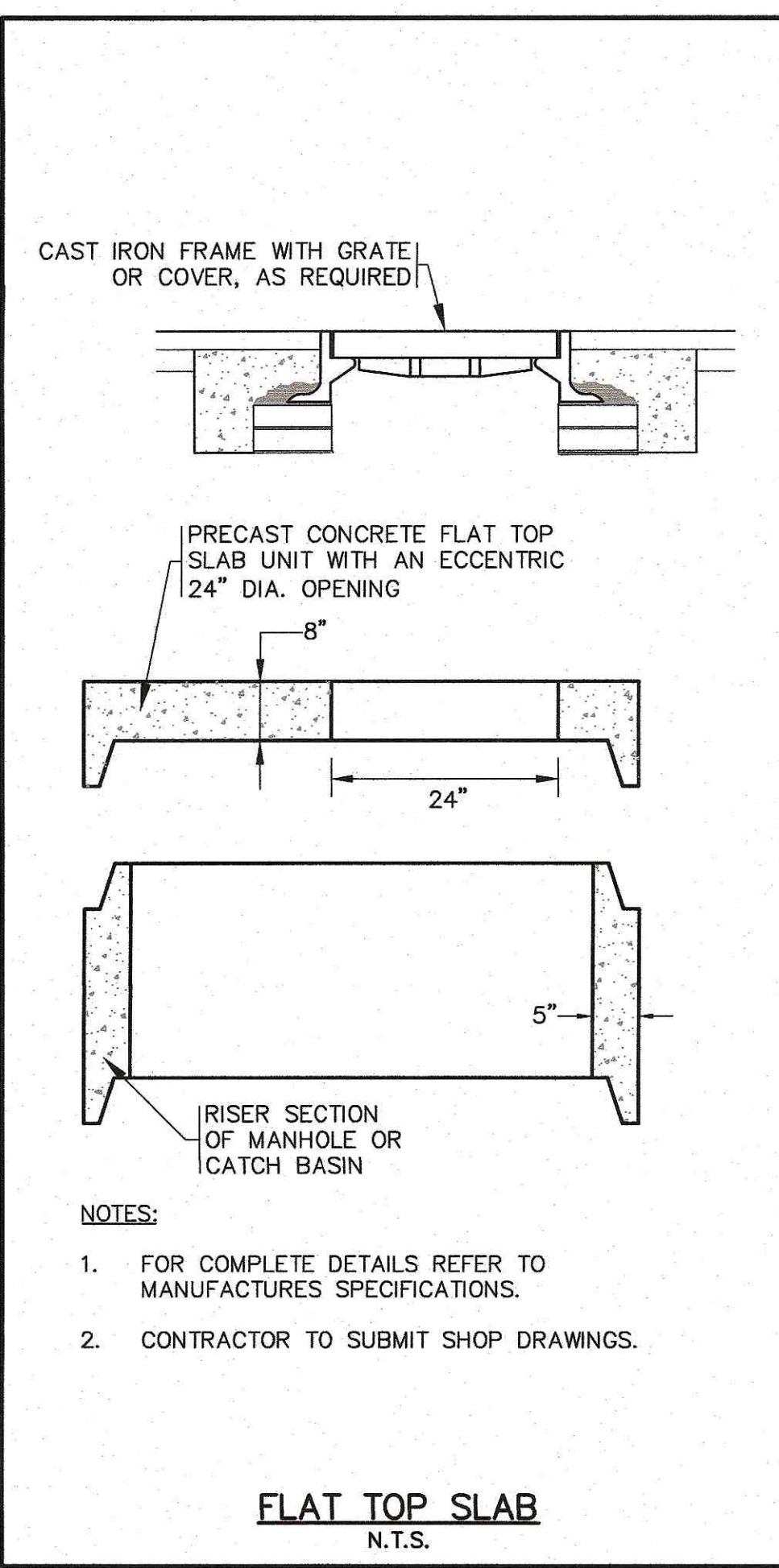
APPROVED BY: *[Signature]*

G.A.F. ENGINEERING, INC.
PROFESSIONAL ENGINEERS & LAND SURVEYORS
266 MAIN STREET - WAREHAM, MA 02571
TEL: (508) 295-6600 FAX: (508) 295-6634
E-MAIL: gaf@gaf-engineering.com

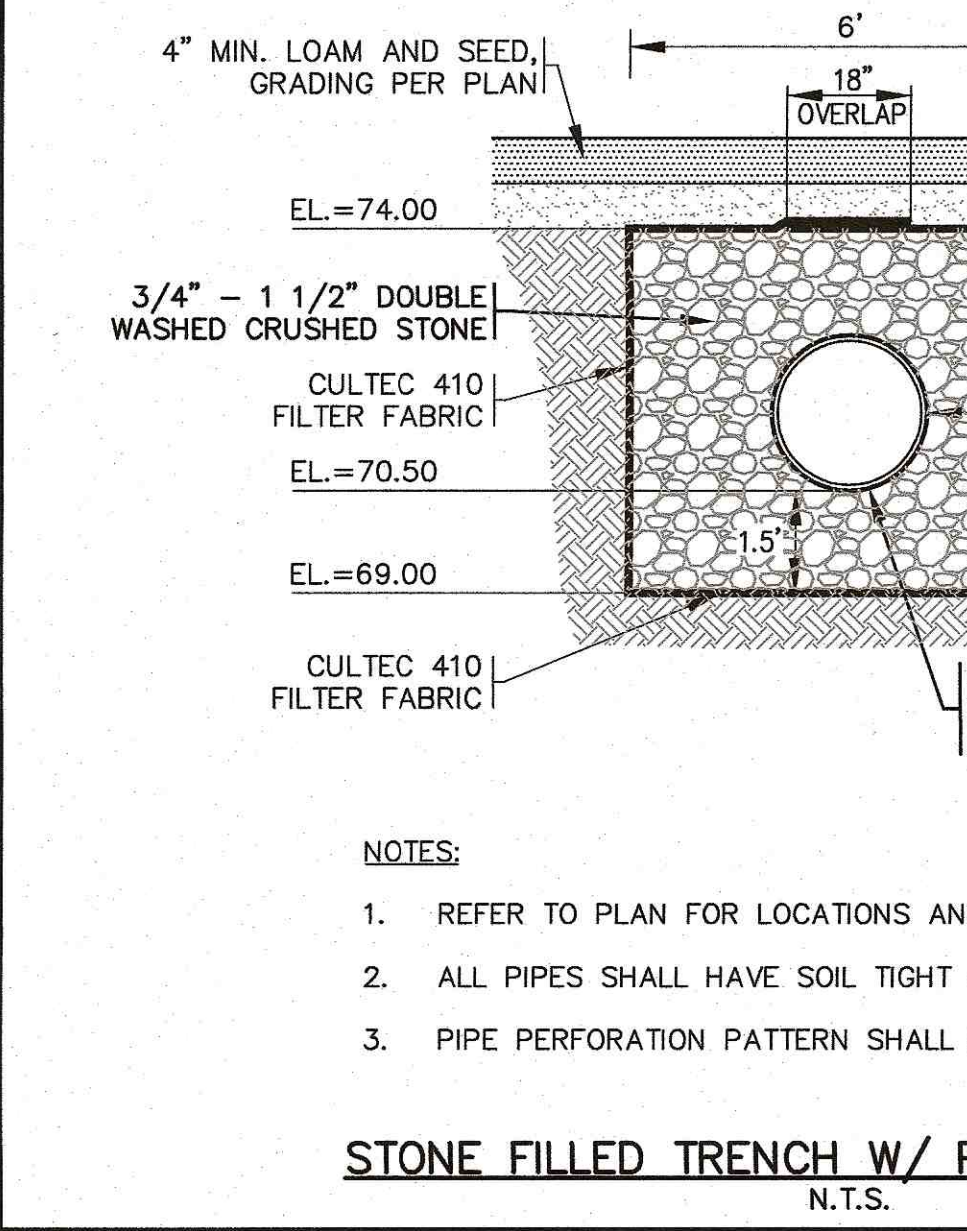
PREPARED FOR:
MASTER MILLWORK, INC.
41 MEETING HOUSE LANE, SUITE 11, SAGAMORE BEACH, MA

SITE DEVELOPMENT PLAN
DETAIL SHEET 2

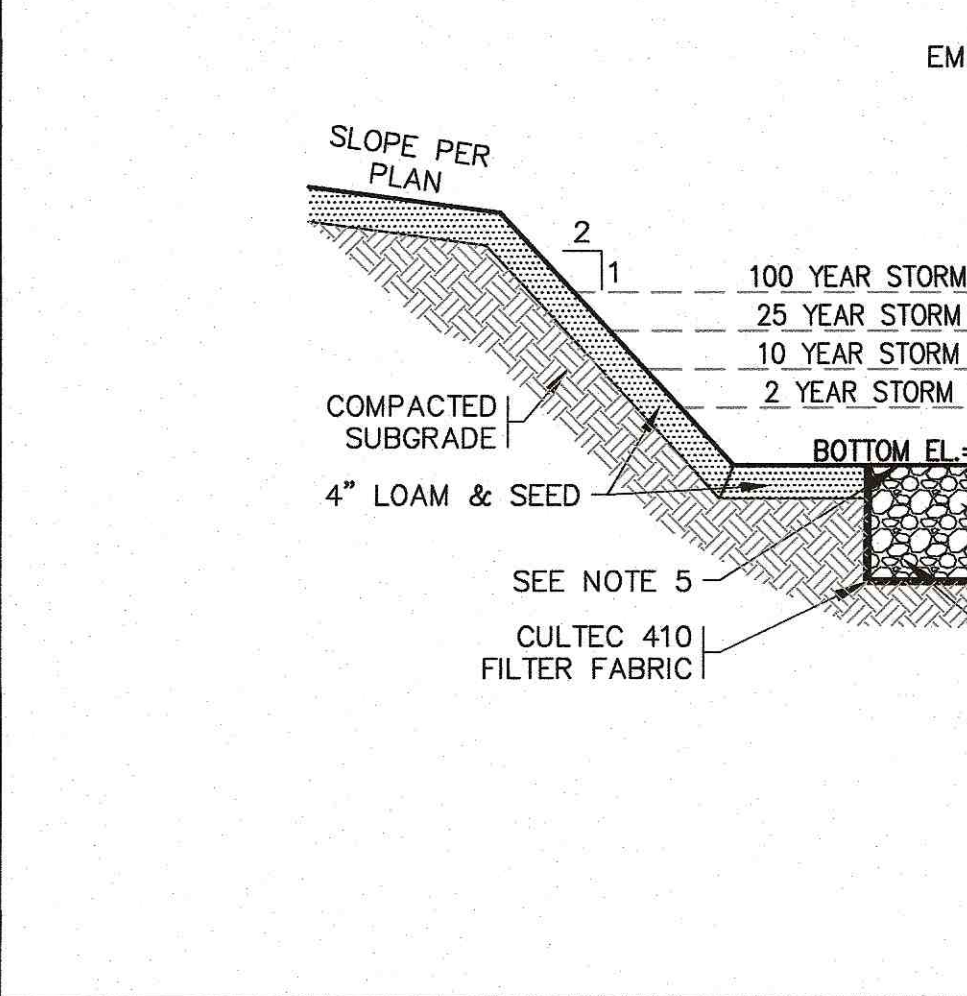
JOB NO.: 19-9342
DWG. 8 OF 10



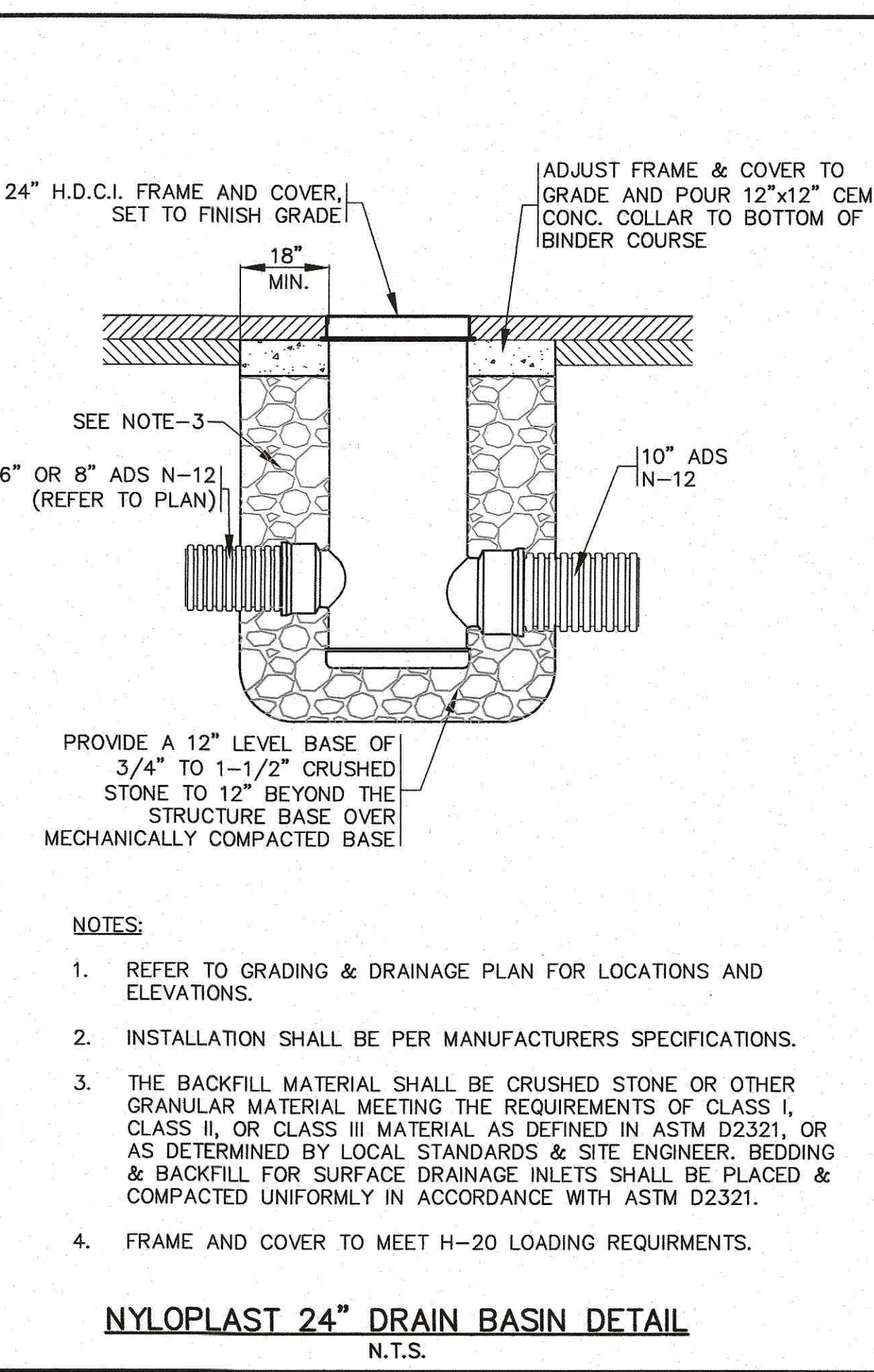
FLAT TOP SLAB
N.T.S.



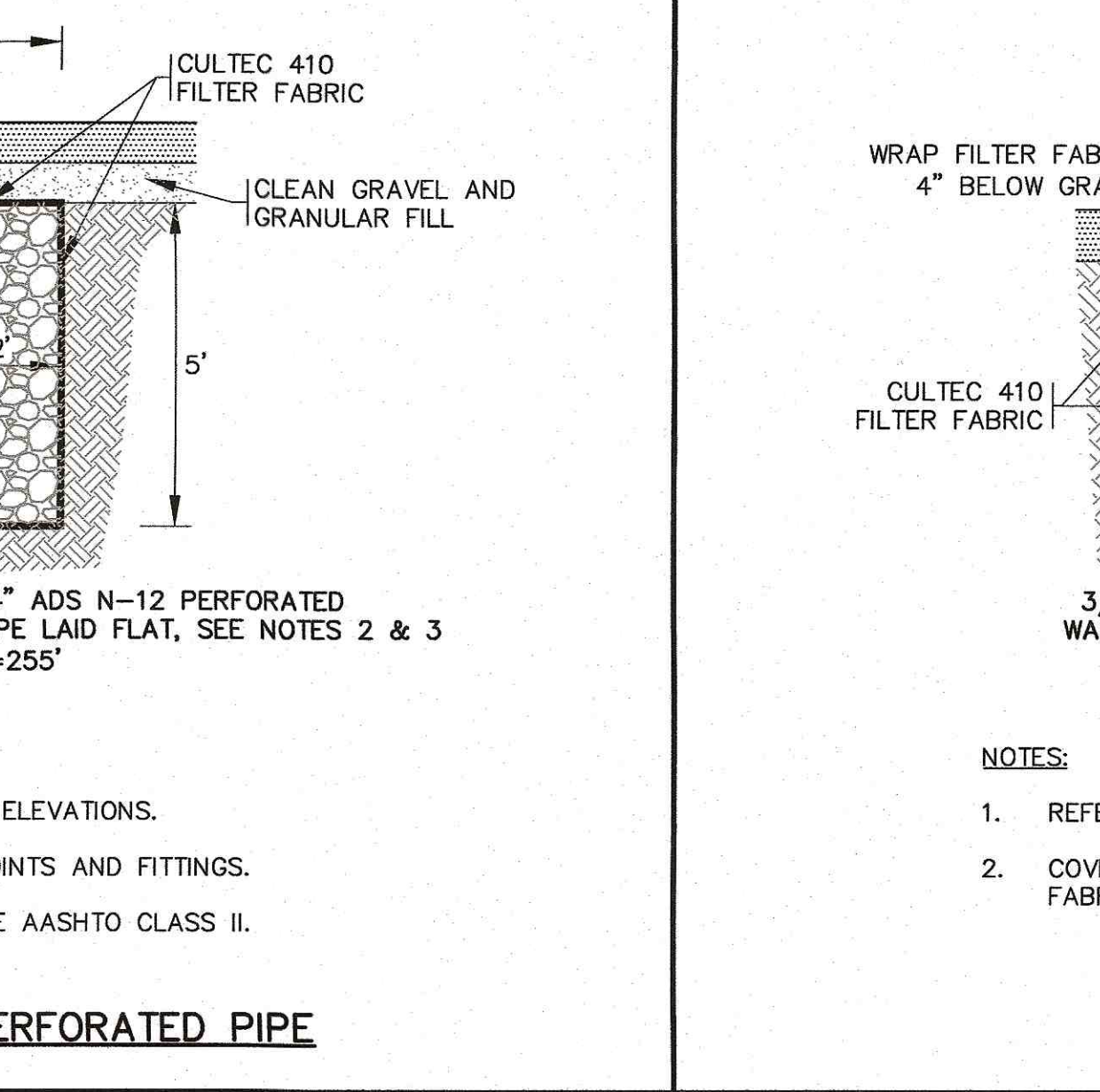
NYLOPLAST 24" DRAIN BASIN DETAIL
N.T.S.



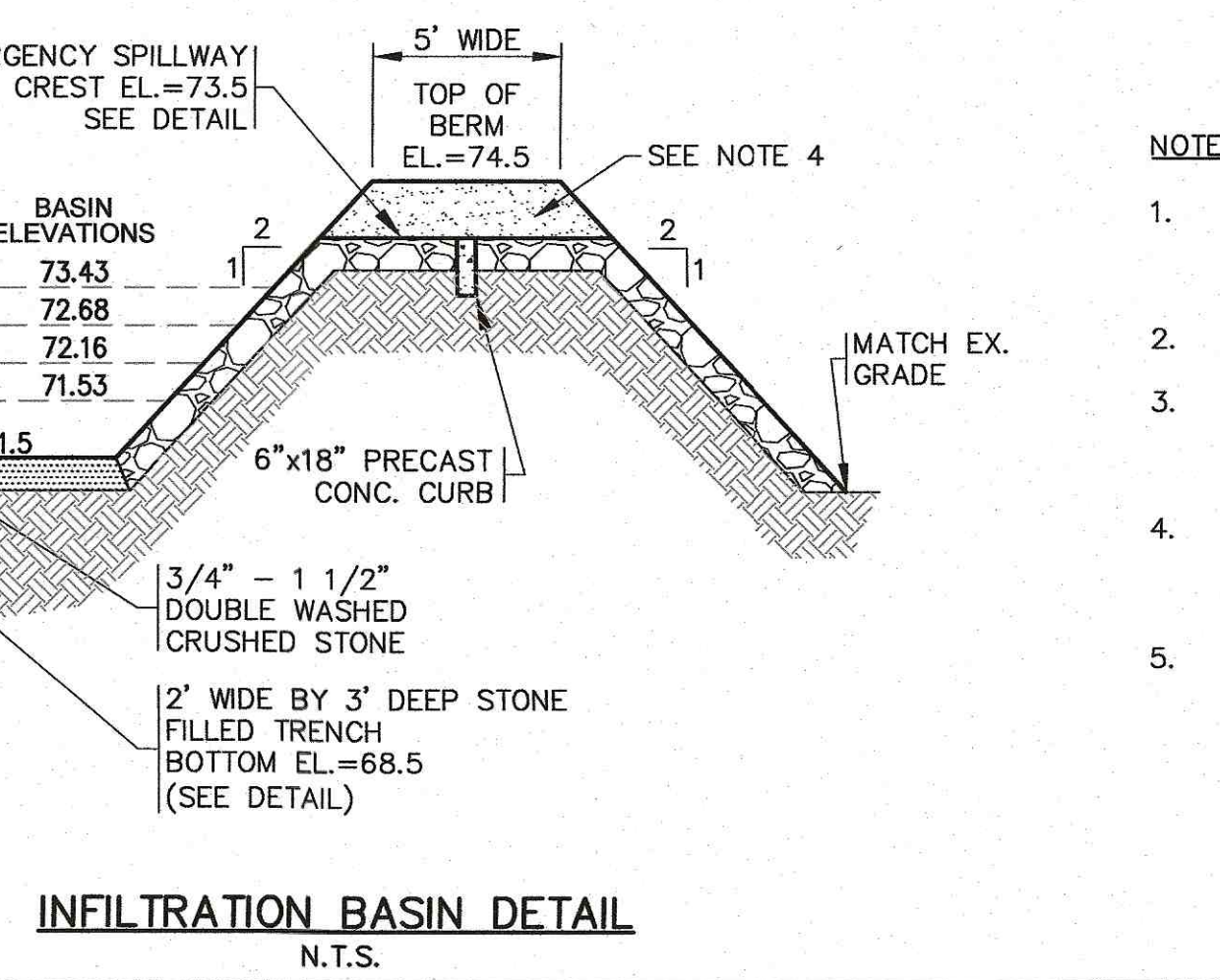
PRECAST CONCRETE LEACHING PIT
N.T.S.



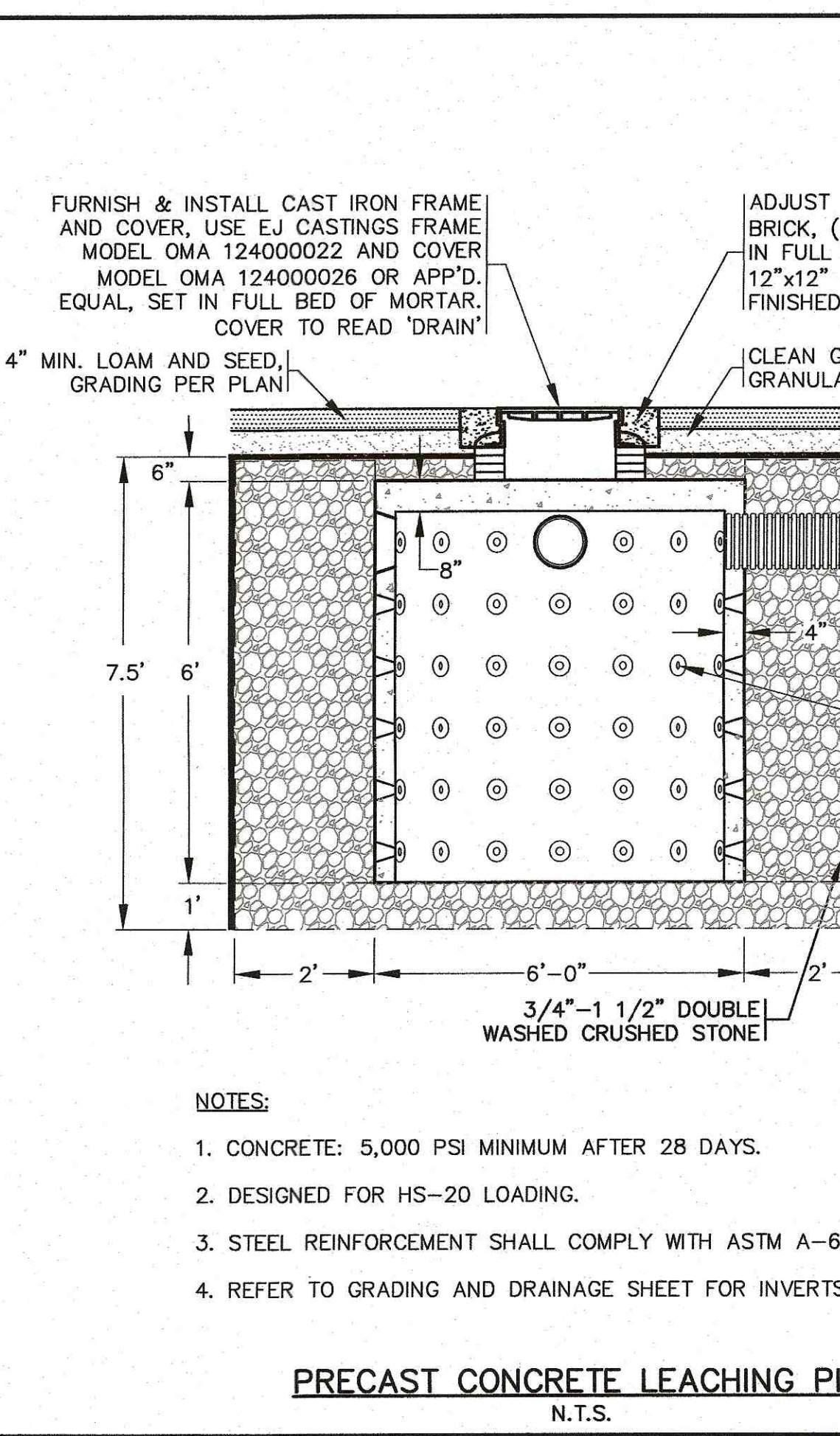
PRECAST CONCRETE LEACHING GALLEYS
N.T.S.



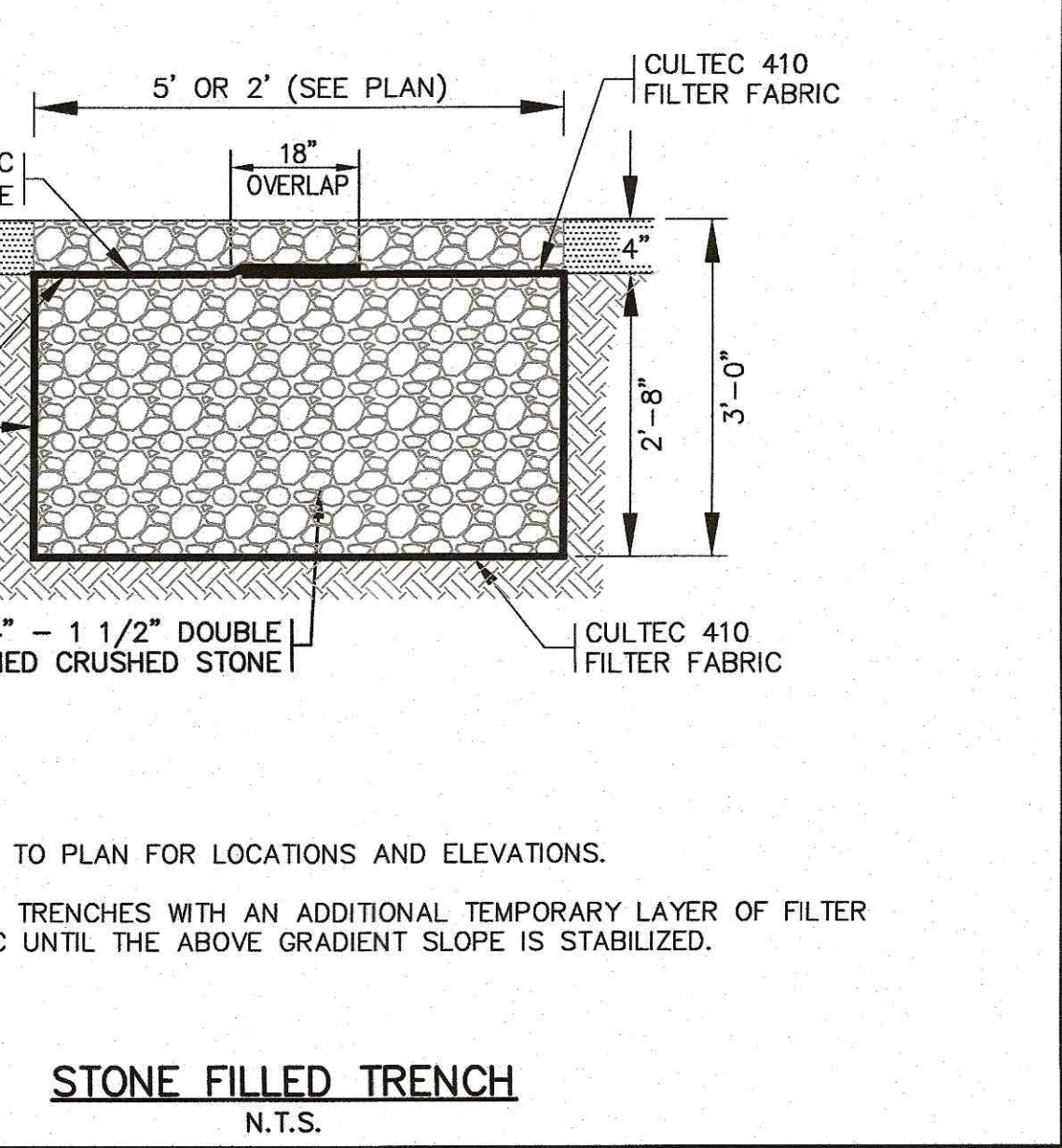
STONE FILLED TRENCH W/ PERFORATED PIPE
N.T.S.



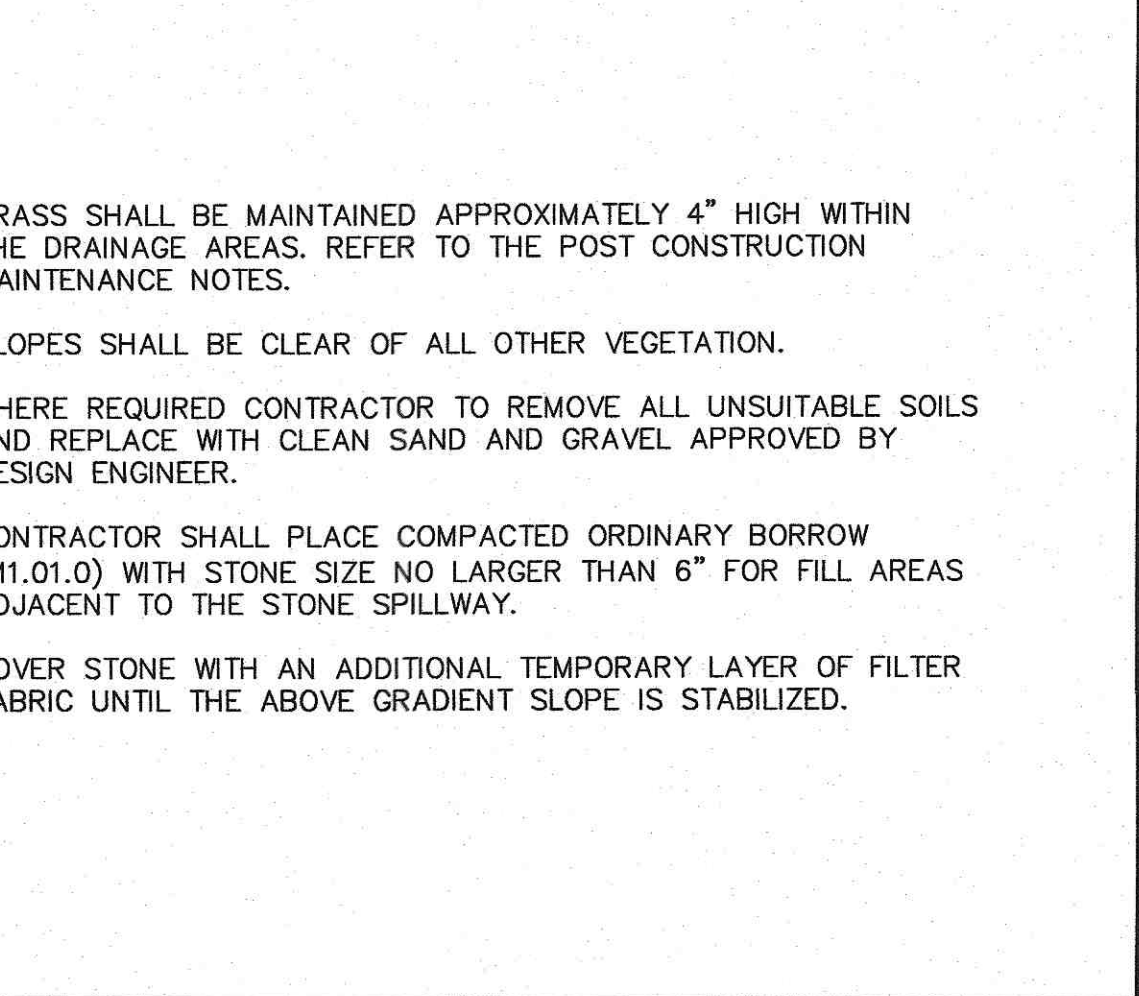
STONE FILLED TRENCH
N.T.S.



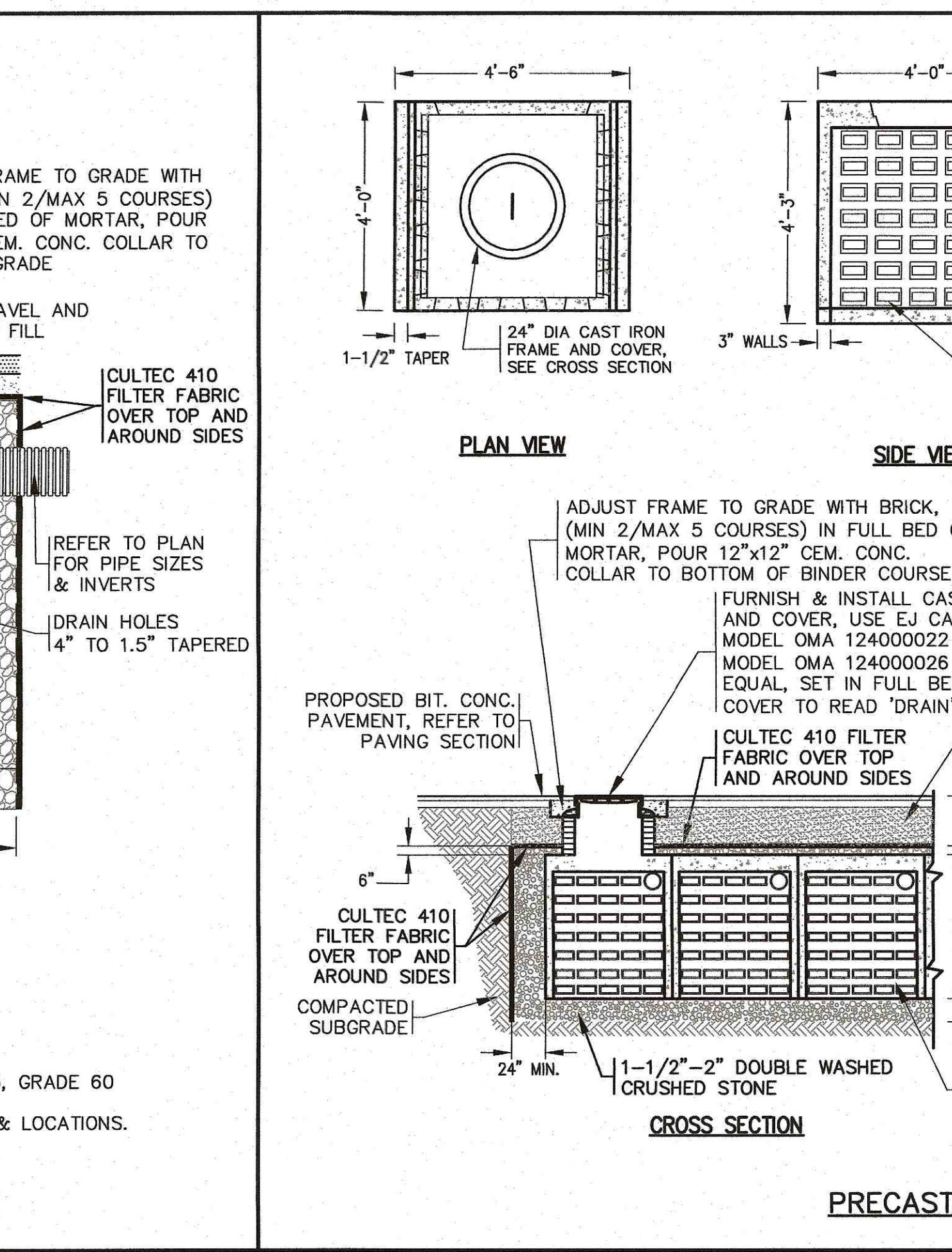
FLARED END SECTION
N.T.S.



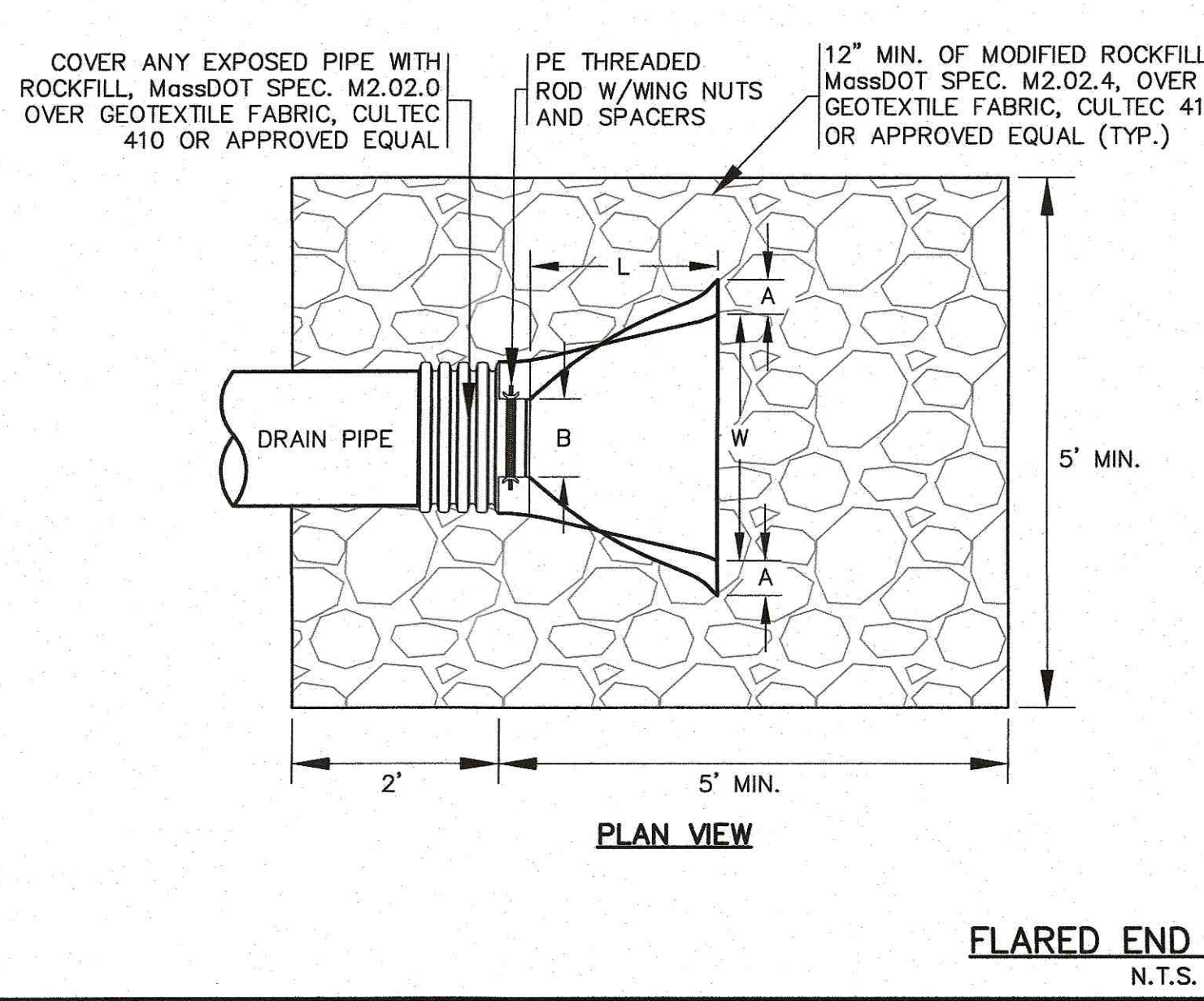
INFILTRATION BASIN DETAIL
N.T.S.



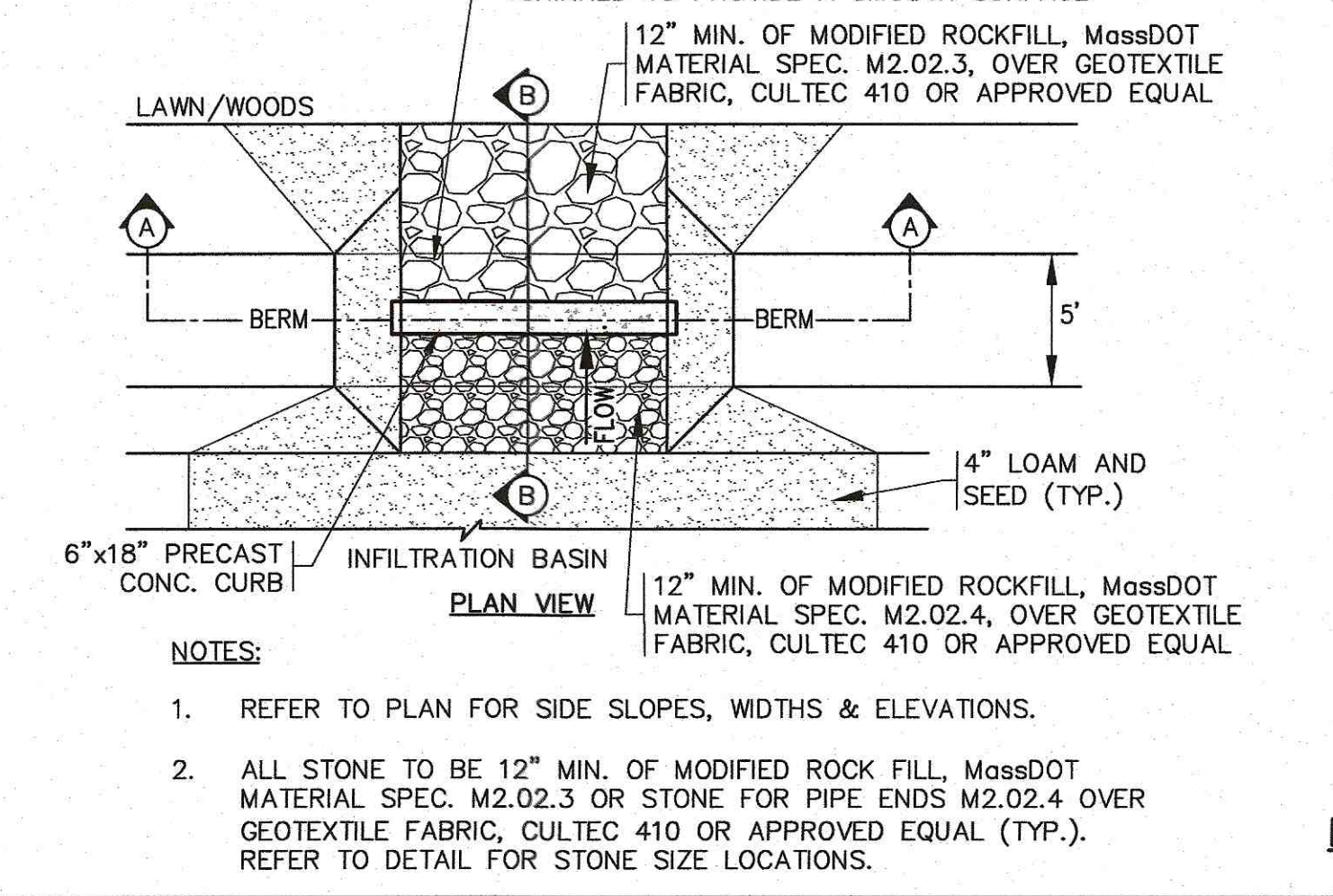
EMERGENCY SPILLWAY
N.T.S.



EMERGENCY SPILLWAY
N.T.S.



PERMIT SET (NOT FOR CONSTRUCTION)



DWG. 9 OF 10

APPROVED BY: [Signature]

DATE: JULY 8, 2020

DRAWN BY: JMP

CHECKED BY: WFM

JOB NO.: 19-9342

SCALE: N.T.S.

DATE:

REV.:

BY:

APP'D:

DESCRIPTION:

4'x4' GALLEY NOTES:

- CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
- DESIGNED FOR HS-20 LOADING.
- GALLEY AVAILABLE IN BOTH END AND CENTER SECTIONS. CENTER SECTIONS HAVE LARGE OPENING IN BOTH THE BACK AND FRONT SIDES.
- REFER TO GRADING AND DRAINAGE SHEET FOR GALLEY AND STONE ELEVATIONS.
- REFER TO GRADING AND DRAINAGE SHEET FOR INVERTS.
- USE ON SITE BACKFILL OVER CONC. GALLEYS WHERE GALLEYS ARE NOT UNDER PAVEMENT. WHEN GALLEYS ARE UNDER PAVEMENT REFER TO PAVEMENT CROSS SECTION.

G.A.F. ENGINEERING, INC.
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E-MAIL: gaf@afg.com

MASTER MILLWORK, INC.
41 MEETING HOUSE LANE, SUITE 11, SAGAMORE BEACH, MA

DATE: 7/8/20

SCALE: N.T.S.

JOB NO.: 19-9342

DATE:

REV.:

BY:

APP'D:

DESCRIPTION:

DATE: 7/8/20

SCALE: N.T.S.

JOB NO.: 19-9342

DATE:

REV.:

BY:

APP'D:

DESCRIPTION:



55 CHARLOTTE FURNACE ROAD
WEST WAREHAM, MA 02576
TEL: 508.273.0500
FAX: 508.273.0503
www.mastermillwork.com

PROPOSED ADDITION TO:
55 CHARLOTTE FURNACE RD
WEST WAREHAM MA 02576

PROJECT:

GENERAL NOTES:

DRAWN BY:
JB

DATE:
JULY 7, 2020

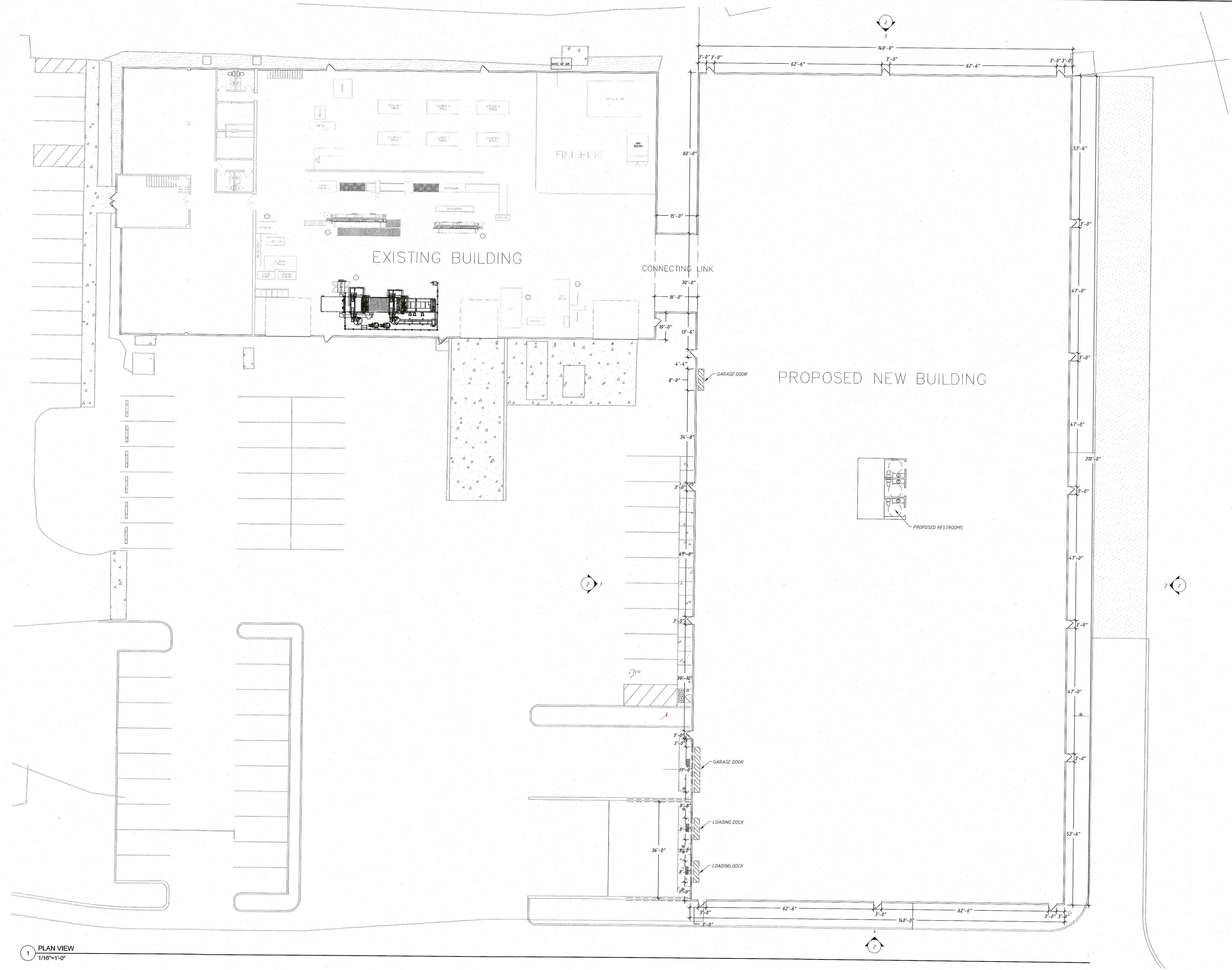
DRAWING:

PLAN
VIEW

PAGE:

1

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1 PLAN VIEW
1/16"=1'-0"

