



LOCUS PLAN
SCALE: 1"=500'±

DATE	DATE REVISED	SHEET NUMBER	SHEET DESCRIPTION
04/13/2026	-	1	COVER SHEET
04/13/2026	-	2	LEGEND & NOTES
04/13/2026	-	3	SITE PREPARATION & EROSION CONTROL PLAN
04/13/2026	-	4	OVERALL LAYOUT PLAN
04/13/2026	-	5	LAYOUT PLAN
04/13/2026	-	6	GRADING & DRAINAGE PLAN
04/13/2026	-	7	UTILITY PLAN
04/13/2026	-	8 - 14	CONSTRUCTION DETAILS
04/02/2026	-	-	PLAN OF LAND *
04/09/2026	-	L-101 - L104	LANDSCAPE PLANS *
04/09/2026	-	L-201 - L202	LIGHTING PLANS *
04/13/2026	-	WW-1 - WW-5	WASTEWATER PUMP STATION PLANS *

* BY OTHERS

PROPERTY:

28 HAVERHILL ROAD (ROUTE 110)
ASSESSOR'S MAP 76 LOT 1

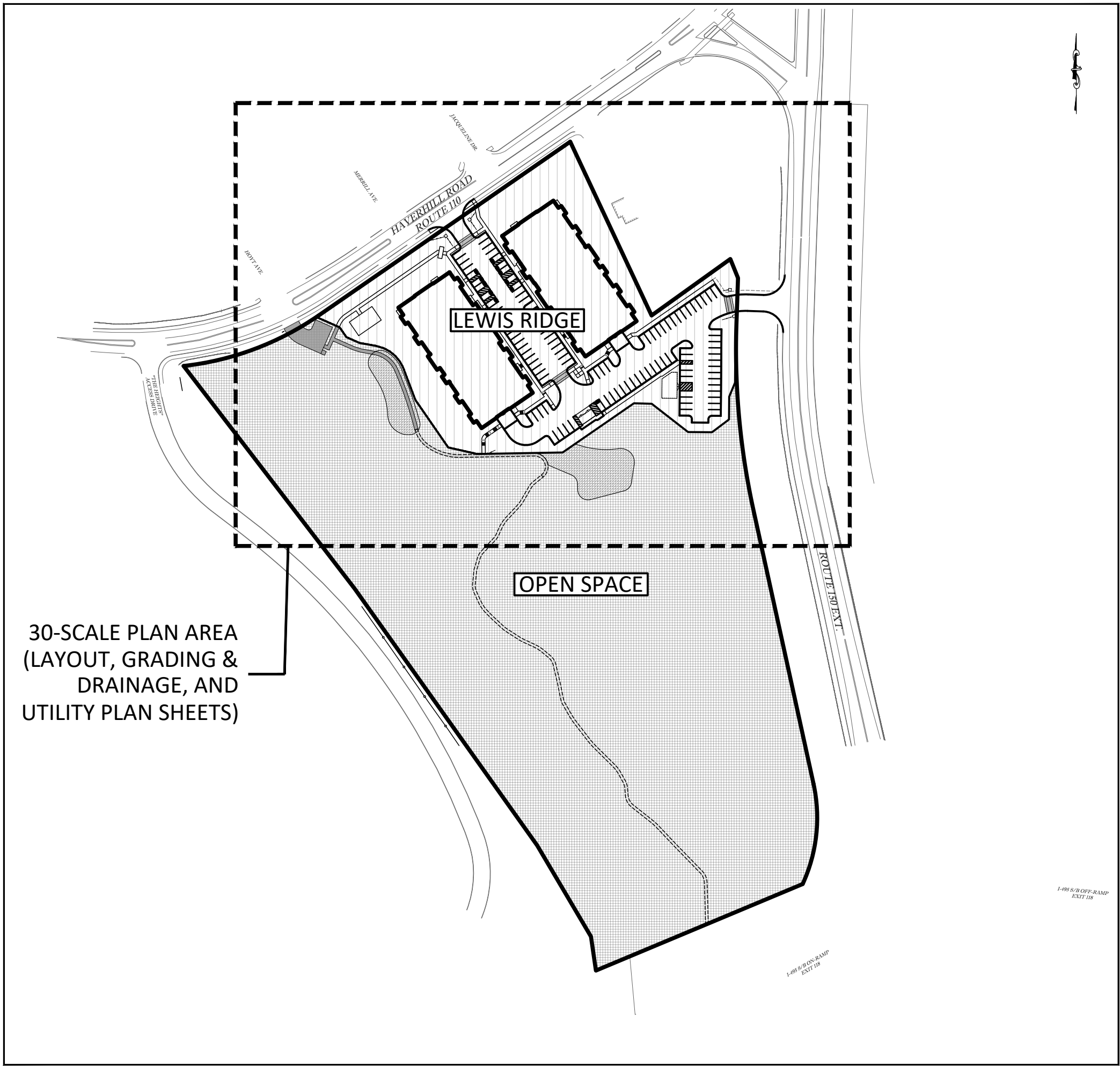
DEED REFERENCE:
BOOK 41629 PAGE 131

PLAN REFERENCE:
PLAN BOOK 447 PLAN 33

OWNER OF RECORD:
NEWBURYPORT PROPERTIES LLC

SITE PLAN
FOR
LEWIS RIDGE
RESIDENTIAL COMMUNITY

AMESBURY GATEWAY VILLAGE (AGV)
SMART GROWTH OVERLAY DISTRICT (SGOD)
28 HAVERHILL ROAD (ROUTE 110)
AMESBURY, MA 01913



SITE OVERVIEW PLAN
SCALE: 1"=150'

CONSULTANTS:

SURVEY:
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978-463-8980
MICHAEL SERGI, P.L.S.

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MDM TRANSPORTATION
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ROBERT MICHAUD, P.E.

PLANNING BOARD

PREPARED BY:

CIVIL DESIGN
GROUP, LLC

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PREPARED FOR:



PULTE HOMES OF NEW ENGLAND, LLC
1900 WEST PARK DRIVE
SUITE180
WESTBOROUGH, MA 01581
www.pulte.com

PERMIT SET
NOT FOR CONSTRUCTION

CDG PROJECT #: 25015

SEAL:



MATTHEW A. LEIDNER, P.E.

SHEET:

COVER SHEET

1

DATE: 04/13/2026

GENERAL NOTES

- THE PROJECT SITE CONSISTS OF ASSESSORS MAP 76 LOT 1 AND TOTALS 577,913± SQUARE FEET (13.27± ACRES).
- ZONING INFORMATION OBTAINED FROM THE CITY OF AMESBURY ZONING MAP, DATED JANUARY 2021, THE CITY OF AMESBURY ZONING OVERLAY MAP, DATED JANUARY 2021, THE CITY OF AMESBURY ZONING ORDINANCE, DATED APRIL 30, 2025, AND THE CITY OF AMESBURY ZONING BILL 2024-066, DATED SEPTEMBER 26, 2024.
- THE PROJECT IS SUBJECT TO PERMITS/APPROVALS INCLUDING BUT NOT LIMITED TO SITE PLAN REVIEW BY THE AMESBURY PLANNING BOARD AND AN ORDER OF CONDITIONS FROM THE AMESBURY CONSERVATION COMMISSION. THE CONTRACTOR SHALL BECOME FAMILIAR WITH AND ADHERE TO ALL CONSTRUCTION-RELATED REQUIREMENTS OF ALL PROJECT APPROVALS.
- THE CONTRACTOR SHALL GIVE AT LEAST 24-HOURS NOTICE (OR MORE IF REQUIRED BY THE MUNICIPALITY) TO PERTINENT MUNICIPAL DEPARTMENTS BEFORE COMMENCING ANY WORK IN THE FIELD. THE CONTRACTOR SHALL ARRANGE PRE-CONSTRUCTION MEETING(S) WITH THE OWNER, FIELD ENGINEER, AND MUNICIPAL OFFICIALS PRIOR TO THE START OF CONSTRUCTION. THE PRE-CONSTRUCTION MEETING(S) SHALL ADHERE TO THE TIMEFRAME AND ATTENDANCE REQUIREMENTS OF THE MUNICIPALITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS AND UTILITY CONNECTION/DISCONNECTION FEES RELATED TO THE PROJECT. CONTRACTOR SHALL NOTIFY AND COORDINATE ALL UTILITY WORK WITH THE APPLICABLE UTILITY COMPANIES AND/OR LOCAL DEPARTMENTS. ALL PERMITS SHALL BE KEPT WITHIN THE TEMPORARY CONSTRUCTION TRAILER AND BE CLEARLY VISIBLE.
- THE CONTRACTOR SHALL ARRANGE FOR ALL INSPECTIONS AS REQUIRED BY THE MUNICIPALITY THROUGHOUT THE COURSE OF CONSTRUCTION.
- ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, SITE ENGINEER, AND JURISDICTIONAL AUTHORITY IF APPLICABLE PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS, AND PLANT SPECIFICATIONS TO THE OWNER AND SITE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
- THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF THE CONSTRUCTION. PARTIAL AS-BUILTS SHALL BE MADE AVAILABLE BY THE CONTRACTOR THROUGHOUT THE COURSE OF CONSTRUCTION AT THE REQUEST OF THE OWNER. UTILITY AS-BUILT INFORMATION SHALL INCLUDE SWING TIES FOR WATER AND SEWER.
- TEMPORARY ON-SITE SALES OFFICES AND ASSOCIATED MARKETING SIGNAGE WILL BE UTILIZED THROUGHOUT THE BUILD-OUT PROCESS (LOCATIONS TO BE SELECTED UPON COMMENCEMENT OF THE SALES PHASE).
- FINAL LOCATION(S) OF MODEL HOME(S) OR UNIT(S) SHALL BE DETERMINED BY THE OWNER.
- ANY DISTURBED AREAS OUTSIDE THE LIMIT OF WORK SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE GENERAL UPKEEP AND CLEANLINESS OF THE SITE AND SURROUNDING AREAS DURING THE CONSTRUCTION PROCESS.
- THE OWNER/APPLICANT SHALL LIMIT CONSTRUCTION DEBRIS AND MATERIALS ON THE SITE. IN THE EVENT THAT DEBRIS IS CARRIED OUTO THE PUBLIC WAY, THE OWNER/ APPLICANT SHALL BE RESPONSIBLE FOR ALL CLEANUP OF THE ROADWAY.
- THE LIMIT OF WORK FOR THIS PROJECT SHALL BE SHOWN ON THE PLANS AS SAWCUT LINES, EROSION CONTROL BARRIER LINES, AND/OR CONSTRUCTION DELINEATION FENCE LINES. LIMIT OF WORK LINES AND SHALL BE MARKED IN THE FIELD PRIOR TO CONSTRUCTION. EXISTING FEATURES WITHIN LIMIT OF WORK LINE SHALL BE REMOVED UNLESS OTHERWISE SPECIFIED.
- THE OFFSITE DISPOSAL OF ALL DEMOISHED MATERIALS SHALL COMPLY WITH THE APPLICABLE LOCAL, STATE AND FEDERAL GUIDELINES.
- FILL MATERIAL(S) SHALL NOT CONTAIN HAZARDOUS MATERIALS.
- CONSTRUCTION DUMPSTERS SHALL BE LOCATED ON A STABLE SURFACE, PROPERLY MAINTAINED, AND EMPTIED ON A REGULAR BASIS.

GRADING & DRAINAGE NOTES

- ALL GRADING AND DRAINAGE WORK INCLUDING MATERIALS, STRUCTURES, INSTALLATION METHODS, INSPECTIONS, AND TESTING REQUIREMENTS SHALL COMPLY WITH PUBLIC WORKS REQUIREMENTS AND ALL OTHER MUNICIPAL REQUIREMENTS TO THE EXTENT APPLICABLE TO PRIVATELY OWNED AND MAINTAINED INFRASTRUCTURE. IN THE EVENT OF A DISCREPANCY BETWEEN THIS PLAN SET AND THE APPLICABLE REQUIREMENTS, THE CONTRACTOR SHALL BRING SUCH DISCREPANCY TO THE ATTENTION OF THE OWNER AND FIELD ENGINEER TO MAKE A COLLECTIVE DECISION ON THE MOST APPROPRIATE WAY TO PROCEED.
- THE ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON THE DATUM REFERENCE USED ON THE EXISTING CONDITIONS SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND ELEVATION BENCHMARKS THROUGHOUT CONSTRUCTION.
- EXTERIOR ELEVATIONS ALONG EACH BUILDING SIDE MAY VARY IN ORDER TO ACHIEVE GRADE IN CERTAIN AREAS. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM THE PROPOSED BUILDING. FOR LOW-RISE BUILDINGS, FINISHED GRADE SHALL BE AT LEAST 16" BELOW THE LOWEST RESIDENTIAL FLOOR ELEVATION.
- ELEVATION OF LANDSCAPED AREAS ARE GIVEN AT FINISHED/LOAMED/MULCHED/PLANTED GRADE.
- ACCESSIBLE ROUTES AND FEATURES SHALL COMPLY WITH APPLICABLE ADA AND AAB REQUIREMENTS. NEW SIDEWALKS, WHERE PROPOSED, SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0% AND MAXIMUM RUNNING SLOPE OF 5% UNLESS A RAMP IS PROVIDED. RAMPS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0% AND A MAXIMUM RUNNING SLOPE OF 8.3%. ACCESSIBLE PARKING SPACES AND PROXIMATE ACCESS AISLES, WHERE PROPOSED, SHALL BE SLOPED AT A MAXIMUM OF 2.0% IN ALL DIRECTIONS. SHOULD ANY DISCREPANCIES WITH THESE REQUIREMENTS ARISE DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT AN ACCEPTABLE SOLUTION CAN BE DETERMINED.
- UNLESS OTHERWISE SPECIFIED, ALL NEW DRAINAGE PIPE SHALL BE DUAL WALL CORRUGATED HDPE (AOS N-12 OR APPROVED EQUAL), RATED FOR H-20 LOADING, MINIMUM 12" COVER (UNLESS GREATER COVER IS REQUIRED BY THE MANUFACTURER), AND LAID AT A MINIMUM SLOPE OF 0.005%/.
- REFER TO GRADING AND DRAINAGE PLAN(S) AND STRUCTURE SCHEDULE(S) FOR DRAIN PIPE SIZES CONNECTING CATCH BASINS TO MANHOLES AND MANHOLES TO MANHOLES. WHERE PROPOSED, LOW-RISE BUILDING GARAGE TRENCH DRAIN OUTLET PIPES SHALL BE 8" MINIMUM.
- ROOF DRAINS:
 - LOW-RISE BUILDINGS:
 - ALL ROOFTOP AREAS SHALL BE GUTTERED AND ALL GUTTER DOWNSPOUTS SHALL TIE INTO A ROOF DRAIN HEADER PIPE (REFER TO ARCHITECTURAL PLANS FOR DOWNSPOUT LOCATIONS). HEADER PIPES SHALL BE 12" IF LAID AT >=0.01%/; 15" IF LAID BETWEEN 0.005%/ AND 0.01%/ UNLESS OTHERWISE NOTED ON THE PLANS. CONNECTOR PIPES FROM EACH DOWNSPOUT TO THE HEADER PIPE SHALL BE 6" AND SHALL TIE INTO THE HEADER PIPE USING A 6"x12" (OR 6"x15") TEE ORIENTED SUCH THAT THE INCOMING INVERT IS AT OR ABOVE THE MIDLINE OF THE HEADER PIPE. EVERY DOWNSPOUT SHALL BE TIED INTO THE ROOF DRAIN HEADER PIPES. ACCESS MANHOLES SHALL BE INSTALLED AS SHOWN ON THE GRADING & DRAINAGE PLANS.
 - EACH BUILDING SHALL HAVE A MINIMUM OF ONE GUTTER DOWNSPOUT OVERFLOW ON EACH INDEPENDENT PIPE NETWORK. THE OVERFLOW SHALL BE INSTALLED ON THE DOWNSPOUT LOCATED AT THE LOWEST GROUND ELEVATION ALONG THE BUILDING WITHIN EACH PIPE NETWORK.
 - ROOF DRAIN PIPES ARE SHOWN SCHEMATICALLY AND DO NOT REPRESENT THE EXACT LOCATION OF DOWNSPOUTS. EXACT CONFIGURATION OF ROOF DRAIN PIPES SHALL BE FIELD DETERMINED FOR EACH BUILDING.
 - THE LOWEST GROUND ELEVATION AT THE GUTTER DOWNSPOUTS SHALL BE ABOVE THE 100-YEAR STORM PEAK WATER ELEVATION FOR THE STORMWATER MANAGEMENT SYSTEM INTO WHICH IT FLOWS.
 - FOUNDATION DRAINS:
 - LOW-RISE BUILDING(S): FOUNDATION DRAINS SHALL EXIT THE BUILDING AT LEAST 1.0' BENEATH THE BASEMENT/SLAB ELEVATION. PIPES SHALL BE 6".
 - PROPOSED FOUNDATION DRAIN PIPES SHALL HAVE CLEANOUTS INSTALLED AT THE FIELD ENGINEER'S DISCRETION.
 - IN NON-TRAFFIC AREAS, EITHER SDR-35 PVC OR HDPE IS ALLOWABLE. SDR-35 PVC SHALL BE USED IN ALL TRAFFIC AREAS.
- PROPOSED CATCH BASINS SHALL INCLUDE ELIMINATOR HOODS. CATCH BASINS IN PAVED AREAS SHALL CONTAIN 4' SUMPS. CATCH BASINS IN LANDSCAPED AREAS (YARD DRAINS) AND ROOF DRAIN MANHOLES WITH GRATED TOPS THAT SERVE AS YARD DRAINS DO NOT REQUIRE SUMPS.
- GALVANIZED STEEL TRASH RACKS SHALL BE INSTALLED ON OPEN ENDS OF ALL INLET AND DISCHARGE DRAIN PIPES 18" OR LARGER IN DIAMETER. TRASH RACKS SHALL BE SIZED TO FIT THE SPECIFIC PIPE FOR WHICH THEY WILL BE USED AND SHALL BE REMOVABLE FOR SERVICING THE PIPE.
- TOP AND BOTTOM OF WALL ELEVATIONS SHOWN ON GRADING & DRAINAGE PLANS REPRESENT THE EXPOSED PORTION OF THE WALL. ALL WALLS GREATER THAN 4 FEET EXPOSED HEIGHT SHALL BE DESIGNED BY A STRUCTURAL ENGINEER.
- EXISTING DRAINAGE AND UTILITY RIM ELEVATIONS LOCATED WITHIN THE LIMIT OF WORK TO REMAIN SHALL BE ADJUSTED BY THE CONTRACTOR TO MATCH NEW FINISHED GRADE.

SITE LAYOUT NOTES

- NO BUILDINGS, BUILDING PROJECTIONS, OR APPURTENANT STRUCTURES SUCH AS DECKS, STAIRS, AND BULKHEADS SHALL BE CONSTRUCTED IN THE REQUIRED BUILDING SETBACKS.
- CURB WITHIN THE SITE LIMITS SHALL BE CAPE COD BERM (CCB), WITH VERTICAL GRANITE CURB (VGC) AT DRIVEWAY ROUNDINGS AND IN THE RIGHT-OF-WAY, IN LOCATIONS WHERE CURB TRANSITIONS FROM REVEAL TO NO REVEAL, AT SPEED TABLES, AND ON OTHER SPECIFIC AREAS AS INDICATED ON THE SITE PLAN. IN CASES WHERE CURB OR BERM DIRECTLY ABUTS A SIDEWALK, AN EXPANSION JOINT SHALL BE PROVIDED BETWEEN THE SIDEWALK AND CURB/BERM.
- RAMPS AND ASSOCIATED LANDINGS SHALL BE CONSTRUCTED OF CEMENT CONCRETE. THIS APPLIES EVEN IN AREAS CONTAINING ASPHALT SIDEWALK. RAMPS SHALL INCLUDE DETECTABLE WARNING PANELS WHETHER OR NOT SHOWN ON THE PLANS.
- WHERE 4-FOOT WIDE SIDEWALKS ARE PROPOSED, 5-FOOT WIDE ACCESSIBLE PASSING SPACES/"BUMPOUTS" SHALL BE PROVIDED AT INTERVALS NOT EXCEEDING 200 FEET IN ACCORDANCE WITH MASSACHUSETTS AAB REQUIREMENTS. SHOULD FIELD CONDITIONS WARRANT SHIFTING THE LOCATION OF ANY OF THE BUMPOUTS, THE CONTRACTOR SHALL ENSURE THAT THE INTERVAL DOES NOT EXCEED 200 FEET.
- ALL ON-SITE TRAFFIC ADVISORY SIGNS INCLUDING STOP SIGNS SHALL BE MOUNTED ON A 4"x4" PRESSURE-TREATED POST WITH BLACK PVC WRAP AND MANSARD CAP, AND SHALL BE 48" FROM GROUND TO BOTTOM OF SIGN. STOP SIGNS DIMENSIONS SHALL BE 18"x18".
- ALL STRIPING AND SIGNAGE TO CONFORM TO THE "MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES" UNLESS OTHERWISE NOTED. PAVEMENT MARKINGS AND STRIPING SHALL PAINTED WITH 2 COATS OF WHITE PAINT PER FEDERAL SPECIFICATION T1-P-115 TYPE 1: ALKYD.
- ACCESSIBLE PARKING SPACES AND ROUTES SHALL CONFORM TO THE LATEST EDITION OF THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE ARCHITECTURAL ACCESS BOARD (AAB) AS SHOWN ON THE SITE LAYOUT PLAN. ACCESSIBLE SIGNAGE SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR COLOR AND SIZE, AND SHALL BE MOUNTED ON 2" ROUND GALVANIZED STEEL POSTS PAINTED BLACK, 48" FROM GROUND TO BOTTOM OF SIGN.
- THE LOCATION AND ELEVATION OF EXISTING UTILITIES AND STRUCTURES SHOWN ON THESE PLANS ARE BASED ON MEASUREMENTS TAKEN IN THE FIELD AND DISCOVERED RECORDS FROM VARIOUS UTILITY COMPANIES AND/OR FROM THE MUNICIPALITY. THIS INFORMATION SHALL NOT BE CONSIDERED EXACT AND THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL NOTIFY "DIG SAFE" (811) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXISTING UTILITY MARK OUT LOCATIONS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF EXISTING UTILITY LOCATIONS CONFLICT WITH THE PROPOSED DEVELOPMENT PROGRAM SO THAT A REMEDIAL ACTION CAN TAKE PLACE PRIOR TO ANY WORK. THE CONTRACTOR IS RESPONSIBLE FOR RELOCATING ALL EXISTING UTILITIES AS A RESULT OF THE PROPOSED DEVELOPMENT.
- ALL UTILITY WORK INCLUDING MATERIALS, STRUCTURES, INSTALLATION METHODS, INSPECTIONS, AND TESTING REQUIREMENTS SHALL COMPLY WITH MUNICIPAL WATER REGULATIONS, MUNICIPAL SEWER REGULATIONS, PUBLIC WORKS REQUIREMENTS, ALL OTHER MUNICIPAL UTILITY REQUIREMENTS TO THE EXTENT APPLICABLE TO PRIVATELY OWNED AND MAINTAINED INFRASTRUCTURE, AND THE REQUIREMENTS OF THE UTILITY SERVICE PROVIDERS. UTILITY WORK SHALL ALSO CONFORM TO THE CONDITIONS OF THE PROJECT APPROVALS. IN THE EVENT OF A DISCREPANCY BETWEEN THIS PLAN SET AND THE APPLICABLE REQUIREMENTS, THE CONTRACTOR SHALL BRING SUCH DISCREPANCY TO THE ATTENTION OF THE OWNER AND FIELD ENGINEER TO MAKE A COLLECTIVE DECISION ON THE MOST APPROPRIATE WAY TO PROCEED.
- ALL UTILITIES SHALL BE LOCATED UNDERGROUND UNLESS OTHERWISE NOTED.
- WATER:
 - MUNICIPAL WATER IS PROPOSED TO BE SUPPLIED TO THE PROJECT FROM AN EXISTING 12" WATER MAIN IN HAVERHILL ROAD.
 - WATER MAINS AND SERVICES SHALL BE INSTALLED WITH A MINIMUM 5' OF COVER EXCEPT AS NOTED OR DETAILED OTHERWISE.
 - NO WATER SERVICE PIPES SHALL BE LAID IN THE SAME TRENCH WITH GAS PIPES, SEWER PIPE OR ANY OTHER FACILITY OF A PUBLIC SERVICE COMPANY, OR WITHIN THREE FEET OF ANY OPEN EXCAVATION OR VAULT.
 - WATER SERVICES SHALL BE SPACED AT LEAST 5' APART AT THE MAIN.
 - DETECTABLE UNDERGROUND WARNING TAPE SHALL BE INSTALLED OVER ALL WATER SERVICES. TRACER WIRE IF REQUIRED BY THE MUNICIPALITY.
 - WATER PIPE SIZES AND MATERIALS:
 - ON-SITE WATER MAIN(S) SHALL BE 8" CLASS 52 CLOI. WATER MAIN SHALL BE POLY WRAPPED AND TAPED DURING INSTALLATION TO HINDER PIPE CORROSION.
 - LOW-RISE BUILDING(S):
 - THE BUILDING SHALL BE SERVICED BY ONE 4" CLASS 52 DUCTILE IRON METERED DOMESTIC WATER SERVICE AND A SEPARATE 6" CLASS 52 DUCTILE IRON NON-METERED FIRE SERVICE.
 - CONTRACTOR SHALL CONFIRM SIZES WITH MEP AND FIRE SUPPRESSION DESIGNER.
 - CONTRACTOR SHALL CONFIRM PIPE MATERIALS AND PIPE/METERING CONFIGURATION WITH THE MUNICIPALITY PRIOR TO CONSTRUCTION.
- WASTEWATER:
 - WASTEWATER IS PROPOSED TO BE CONVEYED VIA GRAVITY TO AN EXISTING 8" SEWER MAIN IN HAVERHILL ROAD.
 - SEWER SHALL BE ENCASED IN CONCRETE IF THE SEWER IS PLACED WITHIN 10" (HORIZONTALLY) OF A WATER LINE AND THE SEWER IS EITHER ABOVE OR WITHIN 18" BELOW THE WATER LINE.
 - DETECTABLE UNDERGROUND WARNING TAPE SHALL BE INSTALLED OVER ALL SEWER SERVICES.
 - ALL SEWER SERVICES SHALL BE TEMPORARILY CAPPED OUTSIDE THE BUILDING AT THE LIMIT OF THE PLUMBER'S SCOPE OF WORK.
 - CONTRACTOR SHALL CONFIRM PIPE MATERIALS AND MINIMUM SLOPES WITH THE MUNICIPALITY PRIOR TO CONSTRUCTION.
 - WASTEWATER PIPE SIZES AND MATERIALS:
 - GRAVITY SEWER:
 - GRAVITY SEWER MAINS SHALL BE 8" PVC LAID AT A MINIMUM SLOPE OF 0.005%/.
 - THE BUILDINGS SHALL BE SERVICED BY ONE 8" DOMESTIC SANITARY SEWER LATERAL AND A SEPARATE 4" LATERAL FROM THE GARAGE FLOOR DRAINS. THE GARAGE FLOOR DRAIN LATERAL SHALL BE ROUTED THROUGH A GAS TRAP BEFORE COMBINING WITH THE SANITARY SEWER. DOMESTIC SANITARY SEWER SERVICE BETWEEN BUILDING AND "WYE" MANHOLE: 8" PVC LAID AT A MINIMUM SLOPE OF 0.02"/. GARAGE FLOOR DRAIN SERVICE BETWEEN BUILDING AND GAS TRAP: 4" CAST IRON LAID AT A MINIMUM SLOPE OF 0.02"/. GARAGE FLOOR DRAIN SERVICE BETWEEN GAS TRAP AND "WYE" MANHOLE: 4" PVC LAID AT A MINIMUM SLOPE OF 0.02"/. "WYE" MANHOLE TO SMH: 8" PVC LAID AT A MINIMUM SLOPE OF 0.005%/.
 - PVC GRAVITY SEWER PIPES WITH A BURY DEPTH OF >10" SHALL BE SDR-26. FOR SHALLOWER INSTALLATIONS SDR-35 IS ACCEPTABLE.
- GAS:
 - NATURAL GAS IS NOT PROPOSED FOR THE PROJECT.
 - THE AMENITY AREA SHALL BE SERVICED BY AN INDIVIDUAL 250 GALLON UNDERGROUND PROPANE TANK AS SHOWN SCHEMATICALLY ON THESE PLANS.
 - PROPANE TANK(S) SHALL MEET ALL REQUIREMENTS OF THE MUNICIPALITY AND OF THE PROPANE COMPANY.
 - CONTRACTOR SHALL COORDINATE THE FINAL LOCATION, SPECIFICATIONS, INSTALLATION METHOD, AND PERMITTING REQUIREMENTS WITH THE OWNER, MUNICIPALITY, AND PROPANE COMPANY PRIOR TO THE INSTALLATION OF PROPANE TANK(S).
- THE CONTRACTOR SHALL COORDINATE ALL PROPOSED ELECTRIC, TELEPHONE, AND CABLE UTILITY WORK WITH THE RESPECTIVE UTILITY COMPANIES. THE PROPOSED CONNECTION LOCATIONS AND DETAILS PROVIDED HEREIN ARE SCHEMATICALLY SHOWN FOR REPRESENTATION PURPOSES ONLY. FINAL CONNECTION POINTS AND DETAILS SHALL BE AS DETERMINED AND REQUIRED BY THE UTILITY COMPANIES AND IN CONSULTATION WITH THE OWNER.
- THE CONTRACTOR SHALL PROVIDE UTILITY AS-BUILT PLANS INCLUDING SWING TIES FOR SEWER AND WATER TO THE OWNER.
- TRANSFORMER(S) AND ASSOCIATED PROTECTIVE BOLLARDS SHALL BE PAINTED DARK GREEN IN COLOR. PAD SIZE AS DETERMINED BY UTILITY COMPANY.
- SITE LIGHTING INSTALLATION CONTRACTOR SHALL BE RESPONSIBLE TO RUN THE WIRING INTO THE NEAREST DESIGNATED METER LOCATION.
- DUE TO THE SCALE OF THE SITE WORK DRAWINGS, THE EXACT LOCATION OF UTILITY SERVICES TO THE BUILDING SHALL BE VERIFIED WITH THE BUILDING DRAWINGS.
- SUITABLE, TEMPORARY PLUGS SHALL BE INSTALLED IN THE OPEN ENDS OF UTILITY SERVICES TO THE BUILDING PRIOR TO BACKFILLING. STUB LOCATIONS SHALL BE MARKED IN THE FIELD SO THAT THEY MAY BE EASILY LOCATED.
- EXISTING DRAINAGE AND UTILITY RIM ELEVATIONS LOCATED WITHIN THE LIMIT OF WORK TO REMAIN SHALL BE ADJUSTED BY THE CONTRACTOR TO MATCH NEW FINISHED GRADE.
- PIPE MATERIALS SHOWN ON THIS PLAN ARE SUBJECT TO SUBSTITUTION AT THE TIME OF CONSTRUCTION. ANY ALTERNATIVE PIPE MATERIAL SHALL CONFORM TO MUNICIPAL AND INDUSTRY STANDARDS FOR THE SELECTED APPLICATION.
- ALL UTILITIES TO BE DISCONNECTED SHALL BE CUT AND CAPPED AT THE MAIN.

UTILITY NOTES

- THE LOCATION AND ELEVATION OF EXISTING UTILITIES AND STRUCTURES SHOWN ON THESE PLANS ARE BASED ON MEASUREMENTS TAKEN IN THE FIELD AND DISCOVERED RECORDS FROM VARIOUS UTILITY COMPANIES AND/OR FROM THE MUNICIPALITY. THIS INFORMATION SHALL NOT BE CONSIDERED EXACT AND THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL NOTIFY "DIG SAFE" (811) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXISTING UTILITY MARK OUT LOCATIONS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF EXISTING UTILITY LOCATIONS CONFLICT WITH THE PROPOSED DEVELOPMENT PROGRAM SO THAT A REMEDIAL ACTION CAN TAKE PLACE PRIOR TO ANY WORK. THE CONTRACTOR IS RESPONSIBLE FOR RELOCATING ALL EXISTING UTILITIES AS A RESULT OF THE PROPOSED DEVELOPMENT.
- ALL UTILITY WORK INCLUDING MATERIALS, STRUCTURES, INSTALLATION METHODS, INSPECTIONS, AND TESTING REQUIREMENTS SHALL COMPLY WITH MUNICIPAL WATER REGULATIONS, MUNICIPAL SEWER REGULATIONS, PUBLIC WORKS REQUIREMENTS, ALL OTHER MUNICIPAL UTILITY REQUIREMENTS TO THE EXTENT APPLICABLE TO PRIVATELY OWNED AND MAINTAINED INFRASTRUCTURE, AND THE REQUIREMENTS OF THE UTILITY SERVICE PROVIDERS. UTILITY WORK SHALL ALSO CONFORM TO THE CONDITIONS OF THE PROJECT APPROVALS. IN THE EVENT OF A DISCREPANCY BETWEEN THIS PLAN SET AND THE APPLICABLE REQUIREMENTS, THE CONTRACTOR SHALL BRING SUCH DISCREPANCY TO THE ATTENTION OF THE OWNER AND FIELD ENGINEER TO MAKE A COLLECTIVE DECISION ON THE MOST APPROPRIATE WAY TO PROCEED.
- ALL UTILITIES SHALL BE LOCATED UNDERGROUND UNLESS OTHERWISE NOTED.
- WATER:
 - MUNICIPAL WATER IS PROPOSED TO BE SUPPLIED TO THE PROJECT FROM AN EXISTING 12" WATER MAIN IN HAVERHILL ROAD.
 - WATER MAINS AND SERVICES SHALL BE INSTALLED WITH A MINIMUM 5' OF COVER EXCEPT AS NOTED OR DETAILED OTHERWISE.
 - NO WATER SERVICE PIPES SHALL BE LAID IN THE SAME TRENCH WITH GAS PIPES, SEWER PIPE OR ANY OTHER FACILITY OF A PUBLIC SERVICE COMPANY, OR WITHIN THREE FEET OF ANY OPEN EXCAVATION OR VAULT.
 - WATER SERVICES SHALL BE SPACED AT LEAST 5' APART AT THE MAIN.
 - DETECTABLE UNDERGROUND WARNING TAPE SHALL BE INSTALLED OVER ALL WATER SERVICES. TRACER WIRE IF REQUIRED BY THE MUNICIPALITY.
 - WATER PIPE SIZES AND MATERIALS:
 - ON-SITE WATER MAIN(S) SHALL BE 8" CLASS 52 CLOI. WATER MAIN SHALL BE POLY WRAPPED AND TAPED DURING INSTALLATION TO HINDER PIPE CORROSION.
 - LOW-RISE BUILDING(S):
 - THE BUILDING SHALL BE SERVICED BY ONE 4" CLASS 52 DUCTILE IRON METERED DOMESTIC WATER SERVICE AND A SEPARATE 6" CLASS 52 DUCTILE IRON NON-METERED FIRE SERVICE.
 - CONTRACTOR SHALL CONFIRM SIZES WITH MEP AND FIRE SUPPRESSION DESIGNER.
 - CONTRACTOR SHALL CONFIRM PIPE MATERIALS AND PIPE/METERING CONFIGURATION WITH THE MUNICIPALITY PRIOR TO CONSTRUCTION.
- WASTEWATER:
 - WASTEWATER IS PROPOSED TO BE CONVEYED VIA GRAVITY TO AN EXISTING 8" SEWER MAIN IN HAVERHILL ROAD.
 - SEWER SHALL BE ENCASED IN CONCRETE IF THE SEWER IS PLACED WITHIN 10" (HORIZONTALLY) OF A WATER LINE AND THE SEWER IS EITHER ABOVE OR WITHIN 18" BELOW THE WATER LINE.
 - DETECTABLE UNDERGROUND WARNING TAPE SHALL BE INSTALLED OVER ALL SEWER SERVICES.
 - ALL SEWER SERVICES SHALL BE TEMPORARILY CAPPED OUTSIDE THE BUILDING AT THE LIMIT OF THE PLUMBER'S SCOPE OF WORK.
 - CONTRACTOR SHALL CONFIRM PIPE MATERIALS AND MINIMUM SLOPES WITH THE MUNICIPALITY PRIOR TO CONSTRUCTION.
 - WASTEWATER PIPE SIZES AND MATERIALS:
 - GRAVITY SEWER:
 - GRAVITY SEWER MAINS SHALL BE 8" PVC LAID AT A MINIMUM SLOPE OF 0.005%/.
 - THE BUILDINGS SHALL BE SERVICED BY ONE 8" DOMESTIC SANITARY SEWER LATERAL AND A SEPARATE 4" LATERAL FROM THE GARAGE FLOOR DRAINS. THE GARAGE FLOOR DRAIN LATERAL SHALL BE ROUTED THROUGH A GAS TRAP BEFORE COMBINING WITH THE SANITARY SEWER. DOMESTIC SANITARY SEWER SERVICE BETWEEN BUILDING AND "WYE" MANHOLE: 8" PVC LAID AT A MINIMUM SLOPE OF 0.02"/. GARAGE FLOOR DRAIN SERVICE BETWEEN BUILDING AND GAS TRAP: 4" CAST IRON LAID AT A MINIMUM SLOPE OF 0.02"/. GARAGE FLOOR DRAIN SERVICE BETWEEN GAS TRAP AND "WYE" MANHOLE: 4" PVC LAID AT A MINIMUM SLOPE OF 0.02"/. "WYE" MANHOLE TO SMH: 8" PVC LAID AT A MINIMUM SLOPE OF 0.005%/.
 - PVC GRAVITY SEWER PIPES WITH A BURY DEPTH OF >10" SHALL BE SDR-26. FOR SHALLOWER INSTALLATIONS SDR-35 IS ACCEPTABLE.
- GAS:
 - NATURAL GAS IS NOT PROPOSED FOR THE PROJECT.
 - THE AMENITY AREA SHALL BE SERVICED BY AN INDIVIDUAL 250 GALLON UNDERGROUND PROPANE TANK AS SHOWN SCHEMATICALLY ON THESE PLANS.
 - PROPANE TANK(S) SHALL MEET ALL REQUIREMENTS OF THE MUNICIPALITY AND OF THE PROPANE COMPANY.
 - CONTRACTOR SHALL COORDINATE THE FINAL LOCATION, SPECIFICATIONS, INSTALLATION METHOD, AND PERMITTING REQUIREMENTS WITH THE OWNER, MUNICIPALITY, AND PROPANE COMPANY PRIOR TO THE INSTALLATION OF PROPANE TANK(S).
- THE CONTRACTOR SHALL COORDINATE ALL PROPOSED ELECTRIC, TELEPHONE, AND CABLE UTILITY WORK WITH THE RESPECTIVE UTILITY COMPANIES. THE PROPOSED CONNECTION LOCATIONS AND DETAILS PROVIDED HEREIN ARE SCHEMATICALLY SHOWN FOR REPRESENTATION PURPOSES ONLY. FINAL CONNECTION POINTS AND DETAILS SHALL BE AS DETERMINED AND REQUIRED BY THE UTILITY COMPANIES AND IN CONSULTATION WITH THE OWNER.
- THE CONTRACTOR SHALL PROVIDE UTILITY AS-BUILT PLANS INCLUDING SWING TIES FOR SEWER AND WATER TO THE OWNER.
- TRANSFORMER(S) AND ASSOCIATED PROTECTIVE BOLLARDS SHALL BE PAINTED DARK GREEN IN COLOR. PAD SIZE AS DETERMINED BY UTILITY COMPANY.
- SITE LIGHTING INSTALLATION CONTRACTOR SHALL BE RESPONSIBLE TO RUN THE WIRING INTO THE NEAREST DESIGNATED METER LOCATION.
- DUE TO THE SCALE OF THE SITE WORK DRAWINGS, THE EXACT LOCATION OF UTILITY SERVICES TO THE BUILDING SHALL BE VERIFIED WITH THE BUILDING DRAWINGS.
- SUITABLE, TEMPORARY PLUGS SHALL BE INSTALLED IN THE OPEN ENDS OF UTILITY SERVICES TO THE BUILDING PRIOR TO BACKFILLING. STUB LOCATIONS SHALL BE MARKED IN THE FIELD SO THAT THEY MAY BE EASILY LOCATED.
- EXISTING DRAINAGE AND UTILITY RIM ELEVATIONS LOCATED WITHIN THE LIMIT OF WORK TO REMAIN SHALL BE ADJUSTED BY THE CONTRACTOR TO MATCH NEW FINISHED GRADE.
- PIPE MATERIALS SHOWN ON THIS PLAN ARE SUBJECT TO SUBSTITUTION AT THE TIME OF CONSTRUCTION. ANY ALTERNATIVE PIPE MATERIAL SHALL CONFORM TO MUNICIPAL AND INDUSTRY STANDARDS FOR THE SELECTED APPLICATION.
- ALL UTILITIES TO BE DISCONNECTED SHALL BE CUT AND CAPPED AT THE MAIN.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

- THIS SITE IS SUBJECT TO THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM OF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY. SITE OPERATORS SHALL CONFORM TO MEET THE CRITERIA FOR A NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES.
- ADAPTATION TO ACTUAL FIELD CONDITIONS MAY WARRANT VARIATIONS FROM WHAT IS SHOWN ON THESE PLANS FOR EROSION CONTROLS IN ORDER TO MAXIMIZE THE EFFECTIVENESS OF THE CONTROLS.
- THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING ALL CONSTRUCTION-RELATED CONDITIONS OUTLINED IN THE APPROVALS IN ADDITION TO THE ITEMS OUTLINED IN THESE CONSTRUCTION DOCUMENTS. THE SEQUENCING PLANS INCLUDED HEREIN ARE PROVIDED AS A GUIDANCE DOCUMENT TO ASSIST IN THE IMPLEMENTATION OF EROSION/SEDIMENTATION CONTROLS AND STABILIZATION OF THE SITE. ADAPTATION TO ACTUAL FIELD CONDITIONS MAY WARRANT VARIATIONS FROM WHAT IS SHOWN ON THESE PLANS TO MAXIMIZE THE EFFECTIVENESS OF THE CONTROLS.
- THE CONTRACTOR SHALL ADHERE TO PROCEDURES OUTLINED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH THE EPA NPDES CONSTRUCTION GENERAL PERMIT REQUIREMENTS.
- IN ACCORDANCE WITH THE NPDES CONSTRUCTION GENERAL PERMIT AND ASSOCIATED STORMWATER POLLUTION PREVENTION PLAN (SWPPP), EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST EVERY 14 DAYS AND WITHIN 24 HOURS OF A 0.25" STORM. REPORTS DOCUMENTING THE RESULTS OF EACH INSPECTION AND ANY CORRECTIVE ACTIONS SHALL BE KEPT ON-FILE WITH THE SWPPP.
- A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED PER THE DETAIL WHEREVER CONSTRUCTION ACCESS EXISTS. PAVED AREAS SHALL BE KEPT CLEAN AT ALL TIMES.
- PROPOSED EROSION AND SEDIMENTATION CONTROL MEASURES WILL INCLUDE SILTATION FENCES, HAY BALES, CRUSHED STONE, RIPRAP, LOAM/SEED, HYDROSEEDING, MULCHING, EROSION CONTROL MATTING, DIVERSION BERMS, AND SEDIMENTATION BASINS AS FURTHER DESCRIBED HEREIN.
- SILTATION FENCES AND WATTLES WILL BE USED FOR THE PERIMETER EROSION CONTROL BARRIER AS SHOWN ON THIS PLAN AND ELSEWHERE AS CONDITIONS WARRANT. HAY BALES WILL BE USED TO PROTECT OFFLINE CATCH BASINS (PRIOR TO BINDER) AND ELSEWHERE AS CONDITIONS WARRANT. THE CONTRACTOR WILL BE REQUIRED TO KEEP A REASONABLE STOCK OF SILTATION FENCE, WATTLES, AND HAY BALES ON SITE TO BE ABLE TO SUPPLEMENT OR MAKE REPAIRS AS NECESSARY.
- LOAMING AND SEEDING OR HYDROSEEDING WILL BE USED AS A PERMANENT STABILIZATION MEASURE FOR ALL REVEGETATED AREAS OF THE SITE.
- ALL PROPOSED SLOPES 3:1 AND STEEPER SHALL BE STABILIZED WITH AN EROSION CONTROL MATTING AND SHALL BE HYDROSEEDED.
- FOR PERIMETER SLOPES THAT DO NOT REQUIRE EROSION CONTROL MATTING (LESS STEEP THAN 3H:1V), THE SURFACE SHALL BE ROUGHENED BY RUNNING TRACKED EQUIPMENT UP/DOWN THE SLOPE TO CREATE IMPRINTS THAT RUN PARALLEL TO THE SLOPE. THESE IMPRINTS WILL FUNCTION AS MICROBASINS.
- MULCHING MAY BE USED TO REINFORCE SEEDED AREAS WHERE EROSION CONTROL MATTING IS NOT REQUIRED OR WARRANTED, BUT WHERE SOME PROTECTION IS WARRANTED. MULCHING MAY ALSO BE USED TO STABILIZE AREAS WHERE CONSTRUCTION ACTIVITIES WILL TEMPORARILY CEASE FOR MORE THAN 14 DAYS.
- SEDIMENTATION BASINS SHALL BE USED THROUGHOUT THE SITE TO TREAT RUNOFF. DIVERSION BERMS SHALL BE UTILIZED TO DIVERT UNTREATED STORMWATER TO THE SEDIMENTATION BASINS. SEDIMENTATION BASINS AND DIVERSION BERMS SHALL BE ADDED, REMOVED, AND ADJUSTED AS THE SITE EVOLVES THROUGHOUT THE CONSTRUCTION PROCESS.
- UPON CONVERTING ANY TEMPORARY SEDIMENTATION BASINS TO PERMANENT DETENTION/INFILTRATION BASINS, THE BASINS SHALL BE CLEANEED OF ALL ACCUMULATED SEDIMENT TO ENSURE THAT THE VOLUMETRIC AND INFILTRATION DESIGN CAPACITIES ARE MAINTAINED.
- STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, IN ACCORDANCE WITH THE NPDES CONSTRUCTION GENERAL PERMIT. STABILIZATION MEASURES SHALL BE IMPLEMENTED NOT MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED, UNLESS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS IN WHICH CASE STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
- EROSION AND SEDIMENTATION CONTROLS WILL BE REQUIRED TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT TO ENSURE THAT THEY FUNCTION AS INTENDED. DEFICIENCIES WILL BE CORRECTED BY CLEANING, REPAIRING, OR REPLACING THE AFFECTED CONTROL(S) OR PORTION(S) THEREOF TO REESTABLISH PROPER FUNCTIONING AS QUICKLY AS POSSIBLE. SEDIMENTATION CONTROLS WILL BE REQUIRED TO BE CLEANED OR REPLACED WHEN THE ACCUMULATED SEDIMENT EXCEEDS 50 PERCENT OF THE DESIGN CAPACITY OF THE CONTROL. ANY OFF-SITE ACCUMULATIONS OF SEDIMENT WILL BE REQUIRED TO BE REMOVED AS QUICKLY AS POSSIBLE IN A MANNER THAT MINIMIZES ADDITIONAL DISTURBANCE.
- EROSION CONTROL BARRIER (WHERE SHOWN) REPRESENTS THE LIMIT OF WORK. WHERE NO EROSION CONTROL BARRIER IS REQUIRED (SUCH AS UPSLOPE AREAS), A LIMIT OF WORK LINE HAS BEEN SHOWN. WHERE NO EROSION CONTROL BARRIER IS REQUIRED, THE LIMIT OF WORK SHALL BE DELINEATED IN THE FIELD BY A VISUAL BARRIER SUCH AS TEMPORARY CONSTRUCTION FENCING IN ORDER TO KEEP CONSTRUCTION ACTIVITIES OUT OF THOSE AREAS.
- THE PROPOSED ONSITE DRAINAGE SYSTEM SHALL BE INSTALLED AS SOON AS PRACTICABLE. ALL EXISTING AND PROPOSED CATCH BASIN INLETS SHALL BE PROTECTED WITH A SILT SACK (SEE DETAIL).
- DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT BASIN OR OTHER SETTLING AREA TO ALLOW FOR SUFFICIENT SETTLING PRIOR TO DISCHARGE.
- DUST SHALL BE CONTROLLED BY AN APPROVED METHOD ACCORDING TO LOCAL, STATE AND FEDERAL STANDARDS.
- ABUTTING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS FROM THIS PROJECT AT ALL TIMES. WORK ON ABUTTING PROPERTY SHALL REQUIRE WRITTEN AUTHORIZATION FROM THE OWNER PRIOR TO ANY LAND DISTURBANCE.
- THE EROSION CONTROL MEASURES ILLUSTRATED IN THIS PLAN SET SHALL BE THE MINIMUM REQUIRED CONTROLS IMPLEMENTED.
- STOCKPILING LOCATIONS SHALL BE FIELD DETERMINED AND SHALL NOT LIE WITHIN THE 100-FOOT WETLAND BUFFER, DIVERSION BERMS AND EROSION CONTROL BARRIERS SHALL BE INSTALLED DOWNGRADIENT OF STOCKPILES IN ACCORDANCE WITH THE PLAN AND DETAILS.
- ESTIMATED STABILIZED AREA AS SHOWN ON THE SEQUENCING PLANS PROVIDED HEREIN REPRESENTS THE APPROXIMATE AREA THAT WILL BE STABILIZED (EITHER TEMPORARILY OR PERMANENTLY) BY THE END OF THE CONSTRUCTION SEQUENCE.
- CRUSHED STONE AND/OR RIPRAP SHALL BE USED TO CONSTRUCT THE TRACKING PAD, CUT SLOPE TREATMENT AREAS, CHECK DAMS, SEDIMENTATION BASIN OUTLET PROTECTION, AND ELSEWHERE AS CONDITIONS WARRANT. THE CONTRACTOR WILL BE REQUIRED TO KEEP A REASONABLE STOCK OF CRUSHED STONE AND RIPRAP ON SITE TO BE ABLE TO SUPPLEMENT OR MAKE REPAIRS AS NECESSARY.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		PROPERTY LINE
		CATCH BASIN
		DRAIN MANHOLE
		SEWER MANHOLE
		DRAIN PIPE
		GAS LINE
		OVERHEAD WIRES
		UNDERGROUND WIRES
		SEWER LINE
		WATER LINE
		FORCE MAIN
		FOUNDATION DRAIN
		ROOF DRAIN
		MINOR CONTOUR
		INDEX CONTOUR
		GUIDERAIL
		STONE WALL/LANDSCAPE WALL
		PERIMETER EROSION CONTROL BARRIER (SEE DETAILS)
		SILT FENCE ONLY (TO DELINEATE LIMIT OF WORK WHERE AN EROSION CONTROL FUNCTION IS NOT NEEDED)
		TREELINE
		CRUSHED STONE
		RIPRAP
		HYDRANT
		SIGN
		UTILITY POLE
		FLARED END SECTION
		TEST PIT LOCATION
		TOP/BOTTOM CURB ELEVATION
		SPOT ELEVATION
		CURB RADIUS

GENERAL ABBREVIATIONS

BOTTOM OF CURB	BC
BEST MANAGEMENT PRACTICE	BMP
BORDERING VEGETATED WETLAND	BWV
CATCH BASIN	CB
CAPE COD BERM	CCB
CELLAR FLOOR	CF
CENTERLINE	CL
CLEANOUT	CO
CONCRETE SURFACE	CONC.
DRAIN MANHOLE	DMH
DIRECTION SIGN	DS
EMERGENCY SPILLWAY	ES
FLARED END SECTION	FES
FOOTING DRAIN	FD
GAS TRAP	GT
GATE VALVE	GV
HIGH DENSITY POLYETHYLENE	HDPE
HIGH POINT	HP
INVERT ELEVATION	I=
IRON PIPE/PIN	IP
LINEAL FEET	LF
LOW POINT	LP
LIMIT OF WORK	LOW
MATCH EXISTING	ME
NOW OR FORMERLY	N/F
NYLOPLAST DRAINAGE STRUCTURE	NP
OUTLET CONTROL STRUCTURE	OCS
PRECAST CONCRETE CURB	PCC
RADIUS	X/R
RIM ELEVATION	R=
ROOF DRAIN	RD
REMOVE	REM
SLOPED GRANITE CURB	SGC
SPEED LIMIT	SL
SUBSURFACE INFILTRATION SYSTEM	SIS
STORMWATER MANAGEMENT AREA	SWMA
THRUST BLOCK	TB
TOP OF CURB	TC
TOP OF FOUNDATION	TF
TYPICAL	TYP.
UNDERDRAIN	UD
UTILITY POLE	UP
WATER QUALITY UNIT	WQU
VERTICAL GRANITE CURB	VGC

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CDG PROJECT #: 25015		
REVISIONS:		
REV	DATE	COMMENT
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PLANNING BOARD:

SEAL:



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MATTHEW A. LEIDNER, P.E.

PREPARED BY:

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PREPARED FOR:





PROPOSED PROJECT AREA
(EXISTING FEATURES WITHIN THIS AREA TO
BE REMOVED UNLESS OTHERWISE NOTED)

GENERAL NOTE:
THIS PLAN IS INTENDED TO SHOW THE PROJECT LIMITS AND PROVIDE A GENERAL REPRESENTATION OF THE PROPOSED PERIMETER EROSION CONTROL LINE AND ANTICIPATED CONSTRUCTION ACCESS LOCATIONS. A HIGHLY DETAILED EROSION AND SEDIMENTATION CONTROL PLAN IS REQUIRED TO BE DEVELOPED PRIOR TO CONSTRUCTION AS PART OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) UNDER EPA'S NPDES CONSTRUCTION GENERAL PERMIT.

ALL EXISTING UTILITY SERVICES THAT ARE TO BE DISCONNECTED SHALL BE CUT AND CAPPED AT THE MAIN. CONTRACTOR SHALL COORDINATE WITH MUNICIPALITY AND APPLICABLE UTILITY COMPANY (TYP.)

CONTRACTOR SHALL COORDINATE REMOVAL OF OVERHEAD WIRES WITH MUNICIPALITY AND APPLICABLE UTILITY COMPANY (TYP.)

EXISTING INFRASTRUCTURE, UTILITIES, AND SIGNAGE WITHIN THE RIGHT-OF-WAY TO REMAIN UNLESS OTHERWISE NOTED OR REQUIRED (TYP.)

"LOW" LINE REPRESENTS SILT FENCE ONLY TO DELINEATE LIMIT OF WORK WHERE AN EROSION CONTROL FUNCTION IS NOT NEEDED

SMH H
RIM=93.25'
SMH F 10" AC INV. IN=83.95'
DIR 10" AC INV. IN=84.06'
DIR 10" AC INV. IN=86.69'
PUMP STATION 10" AC INV. OUT=83.85
SMH E
RIM=95.92'
SMH D 8" AC INV. IN=90.13'
SMH F 8" AC INV. OUT=90.10'
SMH F
RIM=92.42'
SMH E 8" AC INV. IN=84.27'
SMH G 8" AC INV. IN=84.11'
SMH H 10" AC INV. OUT=84.10'

SMH D
RIM=102.16'
SMH C 8" AC INV. IN=92.66'
SMH E 8" AC INV. OUT=92.72'
DIR 8" AC INV. IN=92.66'
DIR 8" AC INV. IN=96.08'

CONTRACTOR SHALL PERFORM PUBLIC SIDEWALK WORK IN A MANNER THAT MINIMIZES THE AMOUNT OF CLOSURE TIME

STABILIZED CONSTRUCTION ENTRANCE

HYDRANT SHALL REMAIN

EXISTING SMHA AND PIPES A AND C SHALL REMAIN; PIPE B SHALL BE REDIRECTED TO NEW SMH; REFER TO UTILITY PLAN (CONTRACTOR SHALL COORDINATE WITH MUNICIPALITY)

EXISTING OAK TREE TO REMAIN AND BE PROTECTED (SURROUND WITH SILT FENCE TO PROTECT)

FUTURE BUILDING OUTLINE FOR CONTEXT (TYP.)

"LOW" LINE REPRESENTS SILT FENCE ONLY TO DELINEATE LIMIT OF WORK WHERE AN EROSION CONTROL FUNCTION IS NOT NEEDED

EROSION CONTROL BARRIER (FOR LEWIS RIDGE PROJECT)

100' RIVERFRONT
EROSION CONTROL BARRIER (FOR WORK ASSOCIATED WITH OPEN SPACE)

EROSION CONTROL BARRIER (FOR WORK ASSOCIATED WITH OPEN SPACE)

EROSION CONTROL BARRIER (FOR LEWIS RIDGE PROJECT)

OWNER AND CONTRACTOR SHALL FIELD-REVIEW ALL TREES ALONG THE LIMIT OF WORK ONCE THE EROSION CONTROL BARRIER IS INSTALLED AND DEAD TREES, LEANING TREES, COMPROMISED TREES, & TREES TOO CLOSE TO PROPOSED BUILDINGS SHALL BE FLAGGED FOR REMOVAL (TYP. OF ENTIRE PERIMETER OF WORK)

N/F
AMESBURY HEIGHTS LLC
36 HAVERHILL ROAD
MAP 86 LOT 25
BK: 34452 PG: 105

INV CPP 24=64.62

N/F
26 HAVERHILL ROAD LLC
26 HAVERHILL ROAD
MAP 76 LOT 2
BK: 40685 PG: 595

338882539
338882539
ohw

CB
RIM=89.70

CB
RIM=90.73

CB
RIM=80.15

CB
RIM=81.65

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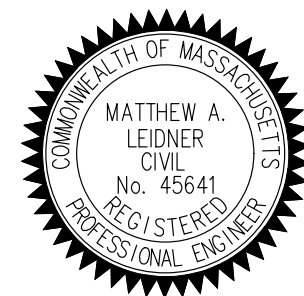
CDG PROJECT #: 25015

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REV	DATE	COMMENT
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PLANNING BOARD:

SEAL:



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WESTBOROUGH, MA 01581
www.pulte.com

PROJECT:

LEWIS RIDGE

28 HAVERHILL ROAD (ROUTE 110)
AMESBURY, MA

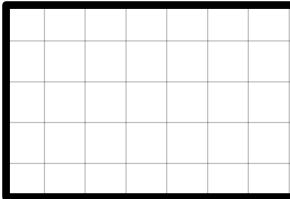
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SHEET:

**SITE PREPARATION &
EROSION CONTROL PLAN**

3

DATE: 04/13/2026

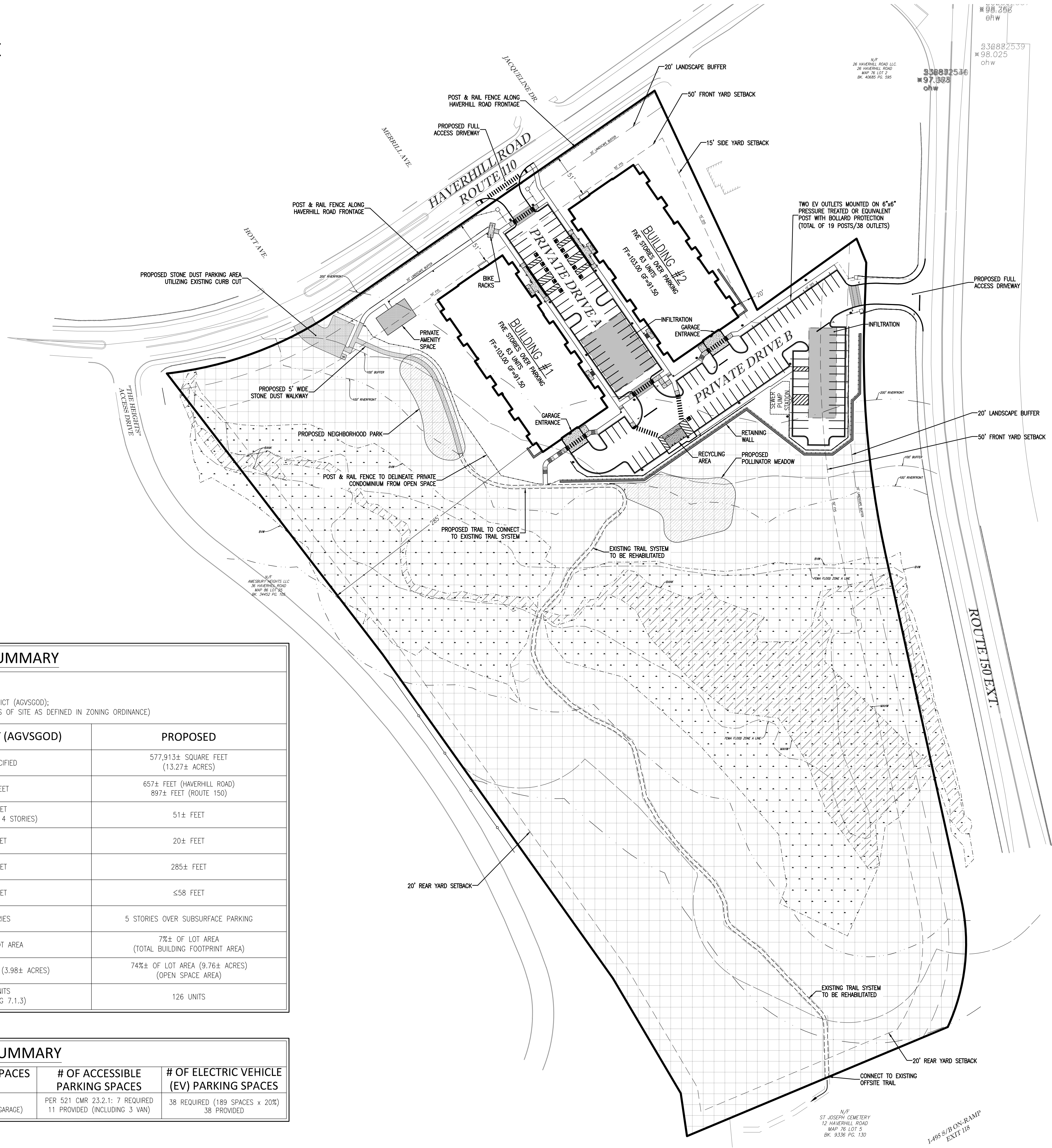


PROPOSED OPEN SPACE
(9.8± ACRES)

RIVERFRONT AREA CALCULATIONS	
TOTAL RIVERFRONT AREA	360,214± SQUARE FEET
RIVERFRONT DISTURBANCE ASSOCIATED WITH LEWIS RIDGE PROJECT	35,996± SQUARE FEET (10%)

ZONING SUMMARY		
# OF DWELLINGS:	126 UNITS (TWO 63-UNIT BUILDINGS)	
UNDERLYING DISTRICT(S):	OFFICE PARK (OP) DISTRICT	
OVERLAY DISTRICT(S):	AMESBURY GATEWAY VILLAGE SMART GROWTH OVERLAY DISTRICT (AGVSGOD); WETLANDS AND FLOODPLAIN PROTECTION DISTRICT (PORTIONS OF SITE AS DEFINED IN ZONING ORDINANCE)	
	REQUIREMENT (AGVSGOD)	PROPOSED
MIN. LOT AREA	NOT SPECIFIED	577,913± SQUARE FEET (13.27± ACRES)
MIN. LOT FRONTAGE	200 FEET	657± FEET (HAVERHILL ROAD) 897± FEET (ROUTE 150)
MIN. FRONT YARD	20 FEET (50 FEET IF > 4 STORIES)	51± FEET
MIN. SIDE YARD	15 FEET	20± FEET
MIN. REAR YARD	20 FEET	285± FEET
MAX. HEIGHT	58 FEET	≤58 FEET
MAX. NUMBER OF STORIES	5 STORIES	5 STORIES OVER SUBSURFACE PARKING
MAX. BUILDING AREA	60% OF LOT AREA	7%± OF LOT AREA (TOTAL BUILDING FOOTPRINT AREA)
MIN. OPEN SPACE	30% OF LOT AREA (3.98± ACRES)	74%± OF LOT AREA (9.76± ACRES) (OPEN SPACE AREA)
MAX. DENSITY	150 UNITS (PER ZONING 7.1.3)	126 UNITS

PARKING SUMMARY				
	# OF PARKING SPACES REQUIRED (AGVSGOD)	# OF PARKING SPACES PROVIDED	# OF ACCESSIBLE PARKING SPACES	# OF ELECTRIC VEHICLE (EV) PARKING SPACES
RESIDENTIAL USES	MIN. 1.5 SP./UNIT (189 SPACES) MAX. 1.75 SP./UNIT (221 SPACES)	216 SPACES (112 SURFACE + 104 GARAGE)	PER 521 CMR 23.2.1: 7 REQUIRED 11 PROVIDED (INCLUDING 3 VAN)	38 REQUIRED (189 SPACES x 20%) 38 PROVIDED



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PREPARED FOR:

Pulte HOMES

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SUITE 180
WESTBOROUGH, MA 01581
www.pulte.com

PROJECT:

LEWIS RIDGE

28 HAVERHILL ROAD (ROUTE 110)
AMESBURY, MA

SCALE:

60 0 30 60 120
GRAPHIC SCALE IN FEET

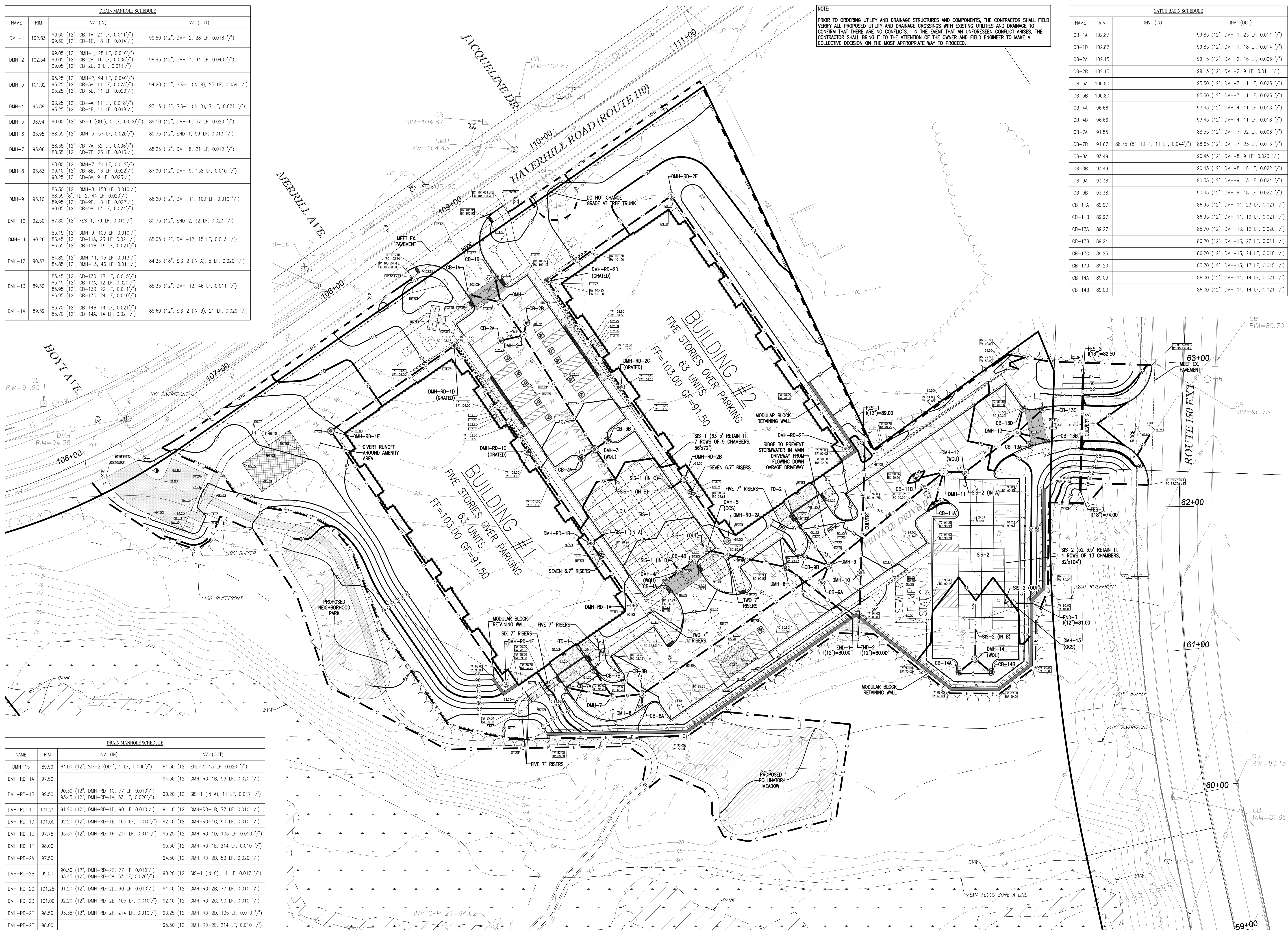
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OVERALL LAYOUT PLAN

4

DATE: 04/13/2026

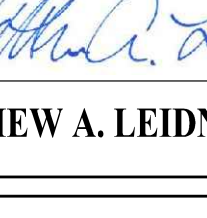
DRAIN MANHOLE SCHEDULE					
NAME	RIM	INV. (IN)		INV. (OUT)	
DMH-15	89.99	84.00 (12",	SIS-2 (OUT), 5 LF, 0.000' /')	81.30 (12",	END-3, 15 LF, 0.020' /')
DMH-RD-1A	97.50			94.50 (12",	DMH-RD-1B, 53 LF, 0.020' /')
DMH-RD-1B	99.50	90.30 (12",	DMH-RD-1C, 77 LF, 0.010' /')	90.20 (12",	SIS-1 (N A), 11 LF, 0.017' /')
		93.45 (12",	DMH-RD-1A, 53 LF, 0.020' /')		
DMH-RD-1C	101.25	91.20 (12",	DMH-RD-1D, 90 LF, 0.010' /')	91.10 (12",	DMH-RD-1B, 77 LF, 0.010' /')
DMH-RD-1D	101.00	92.20 (12",	DMH-RD-1E, 105 LF, 0.010' /')	92.10 (12",	DMH-RD-1C, 90 LF, 0.010' /')
DMH-RD-1E	97.75	93.35 (12",	DMH-RD-1F, 214 LF, 0.010' /')	93.25 (12",	DMH-RD-1E, 105 LF, 0.010' /')
DMH-RD-1F	98.00			95.50 (12",	DMH-RD-1E, 214 LF, 0.010' /')
DMH-RD-2A	97.50			94.50 (12",	DMH-RD-2B, 53 LF, 0.020' /')
DMH-RD-2B	99.50	90.30 (12",	DMH-RD-2C, 77 LF, 0.010' /')	90.20 (12",	SIS-1 (N C), 11 LF, 0.017' /')
		93.45 (12",	DMH-RD-2A, 53 LF, 0.020' /')		
DMH-RD-2C	101.25	91.20 (12",	DMH-RD-2D, 90 LF, 0.010' /')	91.10 (12",	DMH-RD-2B, 77 LF, 0.010' /')
DMH-RD-2D	101.00	92.20 (12",	DMH-RD-2E, 105 LF, 0.010' /')	92.10 (12",	DMH-RD-2C, 90 LF, 0.010' /')
DMH-RD-2E	98.50	93.35 (12",	DMH-RD-2F, 214 LF, 0.010' /')	93.25 (12",	DMH-RD-2D, 105 LF, 0.010' /')
DMH-RD-2F	98.00			95.50 (12",	DMH-RD-2E, 214 LF, 0.010' /')



<u>CATCH BASIN SCHEDULE</u>				
NAME	RM	INV. (IN)	INV. (OUT)	
CB-1A	102.87		99.85 (12", DMH=-1, 23 LF, 0.011 '✓')	
CB-1B	102.87		99.85 (12", DMH=-1, 18 LF, 0.014 '✓')	
CB-2A	102.15		99.15 (12", DMH=-2, 16 LF, 0.006 '✓')	
CB-2B	102.15		99.15 (12", DMH=-2, 9 LF, 0.011 '✓')	
CB-3A	100.80		95.50 (12", DMH=-3, 11 LF, 0.023 '✓')	
CB-3B	100.80		95.50 (12", DMH=-3, 11 LF, 0.023 '✓')	
CB-4A	96.66		93.45 (12", DMH=-4, 11 LF, 0.018 '✓')	
CB-4B	96.66		93.45 (12", DMH=-4, 11 LF, 0.018 '✓')	
CB-7A	91.55		88.55 (12", DMH=-7, 32 LF, 0.006 '✓')	
CB-7B	91.67	88.75 (8", TD=-1, 11 LF, 0.044 '✓')	88.65 (12", DMH=-7, 23 LF, 0.013 '✓')	
CB-8A	93.49		90.45 (12", DMH=-8, 9 LF, 0.023 '✓')	
CB-8B	93.49		90.45 (12", DMH=-8, 16 LF, 0.022 '✓')	
CB-9A	93.38		90.35 (12", DMH=-9, 13 LF, 0.024 '✓')	
CB-9B	93.38		90.35 (12", DMH=-9, 18 LF, 0.022 '✓')	
CB-11A	89.97		86.95 (12", DMH=-11, 23 LF, 0.021 '✓')	
CB-11B	89.97		86.95 (12", DMH=-11, 19 LF, 0.021 '✓')	
CB-13A	89.27		85.70 (12", DMH=-13, 12 LF, 0.020 '✓')	
CB-13B	89.24		86.20 (12", DMH=-13, 22 LF, 0.011 '✓')	
CB-13C	89.23		86.20 (12", DMH=-13, 24 LF, 0.010 '✓')	
CB-13D	89.20		85.70 (12", DMH=-13, 17 LF, 0.015 '✓')	
CB-14A	89.03		86.00 (12", DMH=-14, 14 LF, 0.021 '✓')	
CB-14B	89.03		86.00 (12", DMH=-14, 14 LF, 0.021 '✓')	

NOTE:

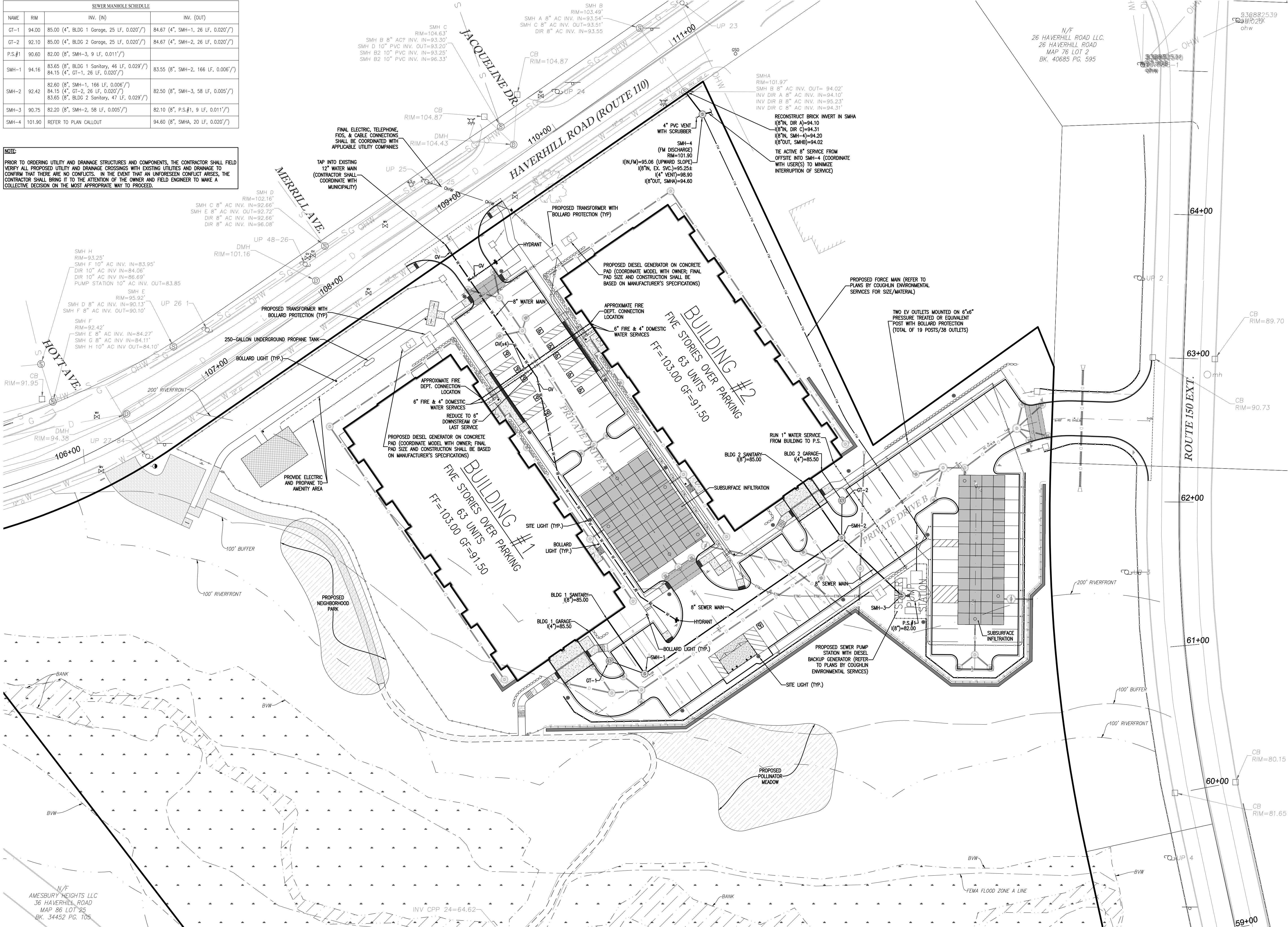
PRIOR TO ORDERING UTILITY AND DRAINAGE STRUCTURES AND COMPONENTS, THE CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UTILITY AND DRAINAGE CROSSINGS WITH EXISTING UTILITIES AND DRAINAGE TO CONFIRM THAT THERE ARE NO CONFLICTS. IN THE EVENT THAT AN UNFORESEEN CONFLICT ARISES, THE CONTRACTOR SHALL BRING IT TO THE ATTENTION OF THE OWNER AND FIELD ENGINEER TO MAKE A COLLECTIVE DECISION ON THE MOST APPROPRIATE WAY TO PROCEED.

<i>PERMIT SET - NOT FOR CONSTRUCTION</i>		
CDG PROJECT #:		25015
REVISIONS:		
REV	DATE	COMMENT
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PLANNING BOARD:		
SEAL:		
  MATTHEW A. LEIDNER, P.E.		
PREPARED BY:		
CIVIL DESIGN GROUP, LLC 4 HIGH STREET, SUITE 155 NORTH ANDOVER, MA 01845 www.cdgengineering.com p: 978-794-5400 f: 978-965-3971		
PREPARED FOR:		
 1900 WEST PARK DRIVE SUITE 180 WESTBOROUGH, MA 01581 www.pulte.com		
PROJECT:		
LEWIS RIDGE 28 HAVERHILL ROAD (ROUTE 110) AMESBURY, MA		
SCALE:		
 GRAPHIC SCALE IN FEET		
SHEET:		
GRADING & DRAINAGE PLAN		
6		
DATE:		

04/13/2026

SEWER MANHOLE SCHEDULE				
NAME	RIM	INV. (IN)	INV. (OUT)	
GT-1	94.00	85.00 (4", BLDG 1 Garage, 25 LF, 0.020'/')	84.67 (4", SMH-1, 26 LF, 0.020'/')	
GT-2	92.10	85.00 (4", BLDG 2 Garage, 25 LF, 0.020'/')	84.67 (4", SMH-2, 26 LF, 0.020'/')	
P.S.#1	90.60	82.00 (8", SMH-3, 9 LF, 0.011'/')		
SMH-1	94.16	83.65 (8", BLDG 1 Sanitary, 46 LF, 0.029'/') 84.15 (4", GT-1, 26 LF, 0.020'/')	83.55 (8", SMH-2, 166 LF, 0.006'/')	
SMH-2	92.42	82.60 (8", SMH-1, 166 LF, 0.006'/') 84.15 (4", GT-2, 26 LF, 0.020'/') 83.65 (8", BLDG 2 Sanitary, 47 LF, 0.029'/')	82.50 (8", SMH-3, 58 LF, 0.005'/')	
SMH-3	90.75	82.20 (8", SMH-2, 58 LF, 0.005'/')	82.10 (8", P.S.#1, 9 LF, 0.011'/')	
SMH-4	101.90	REFER TO PLAN CALLOUT	94.60 (8", SMH-4, 20 LF, 0.020'/')	

NOTE:
PRIOR TO ORDERING UTILITY AND DRAINAGE STRUCTURES AND COMPONENTS, THE CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UTILITY AND DRAINAGE CROSSINGS WITH EXISTING UTILITIES AND DRAINAGE TO CONFIRM THAT THERE ARE NO CONFLICTS. IN THE EVENT THAT AN UNFORESEEN CONFLICT ARISES, THE CONTRACTOR SHALL BRING IT TO THE ATTENTION OF THE OWNER AND FIELD ENGINEER TO MAKE A COLLECTIVE DECISION ON THE MOST APPROPRIATE WAY TO PROCEED.



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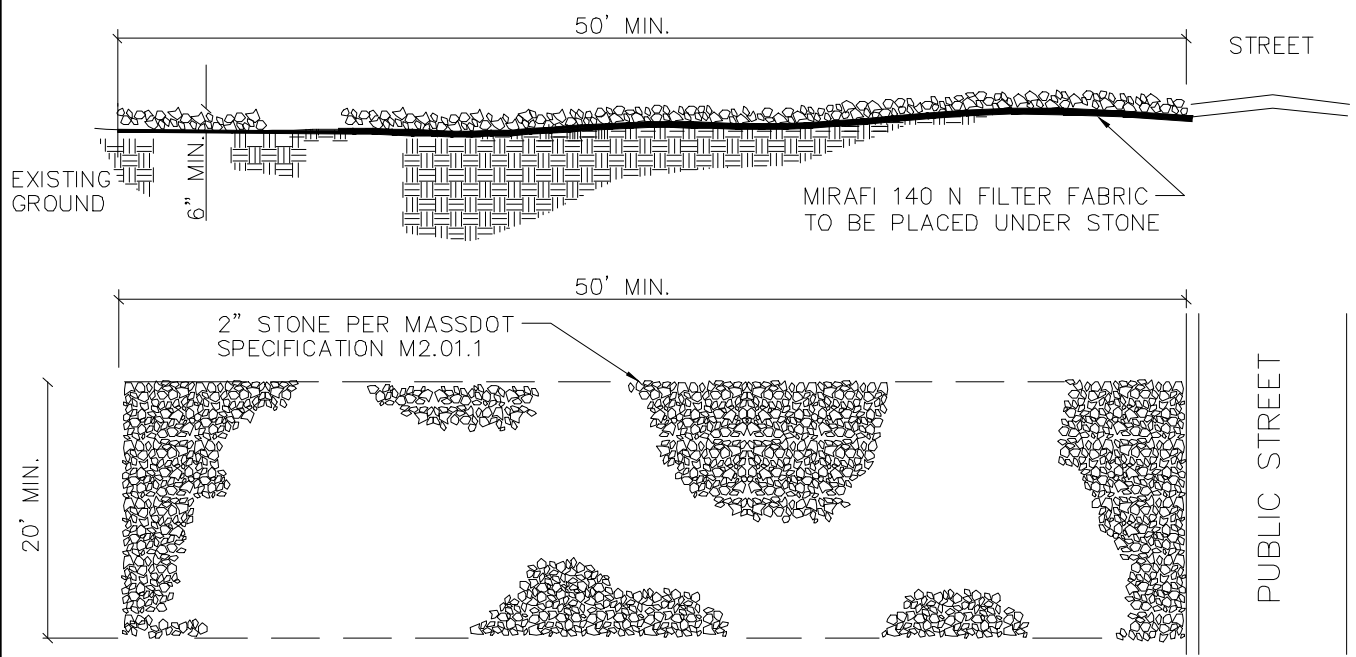
PREPARED FOR:
Pulte
HOMES
1900 WEST PARK DRIVE
SUITE 180
WESTBOROUGH, MA 01581
www.pulte.com

PROJECT:
LEWIS RIDGE
28 HAVERHILL ROAD (ROUTE 110)
AMESBURY, MA

SCALE:
30 0 15 30 60
GRAPHIC SCALE IN FEET

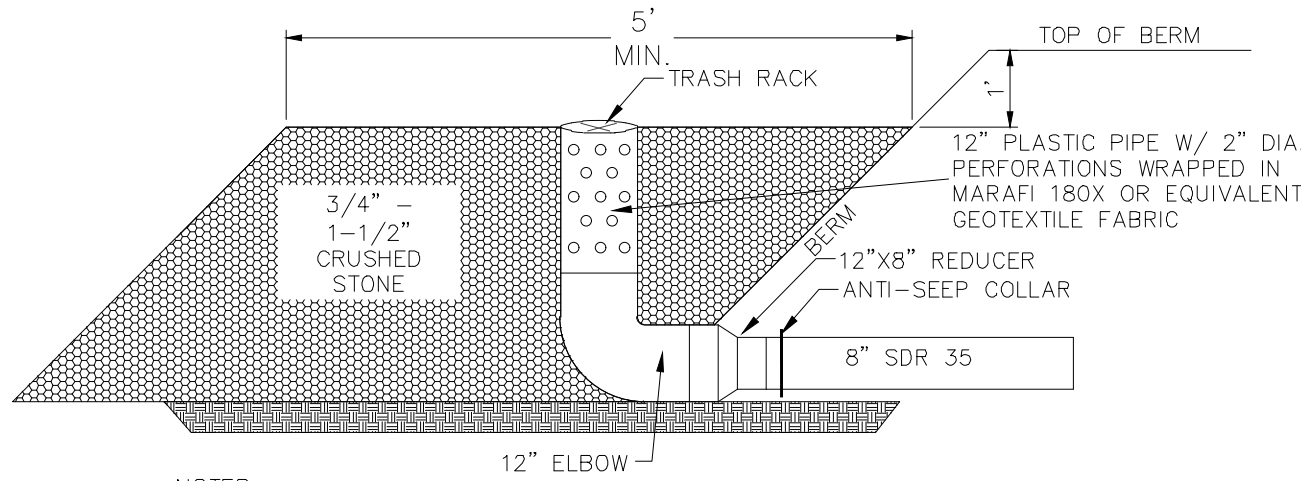
SHEET:
UTILITY PLAN

7
DATE: 04/13/2026



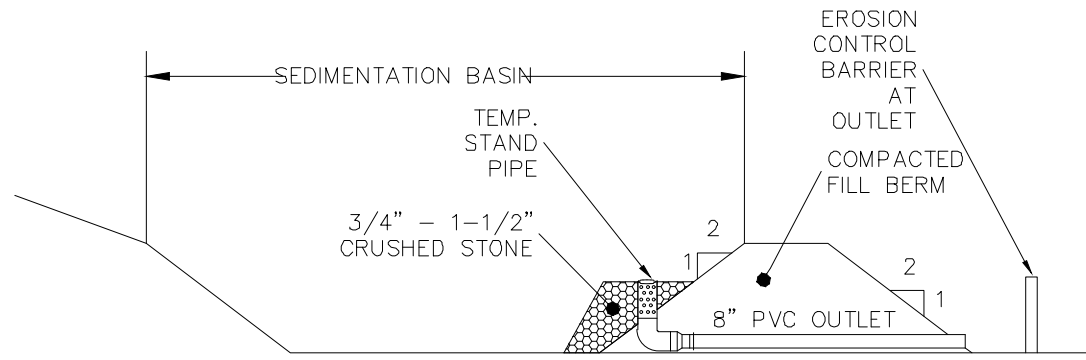
TYPICAL STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE



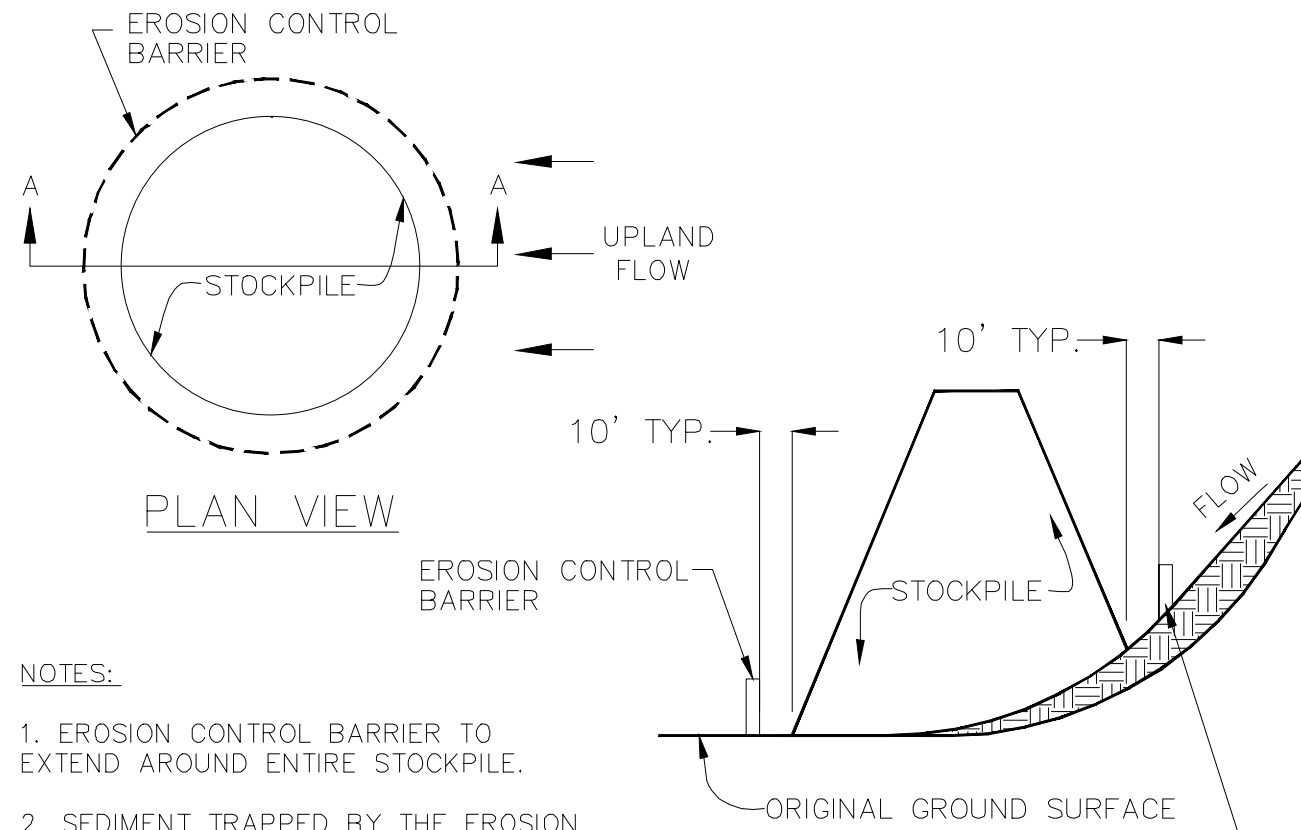
TEMPORARY STANDPIPE DETAIL

NOT TO SCALE



TEMPORARY SEDIMENTATION BASIN DETAIL

NOT TO SCALE

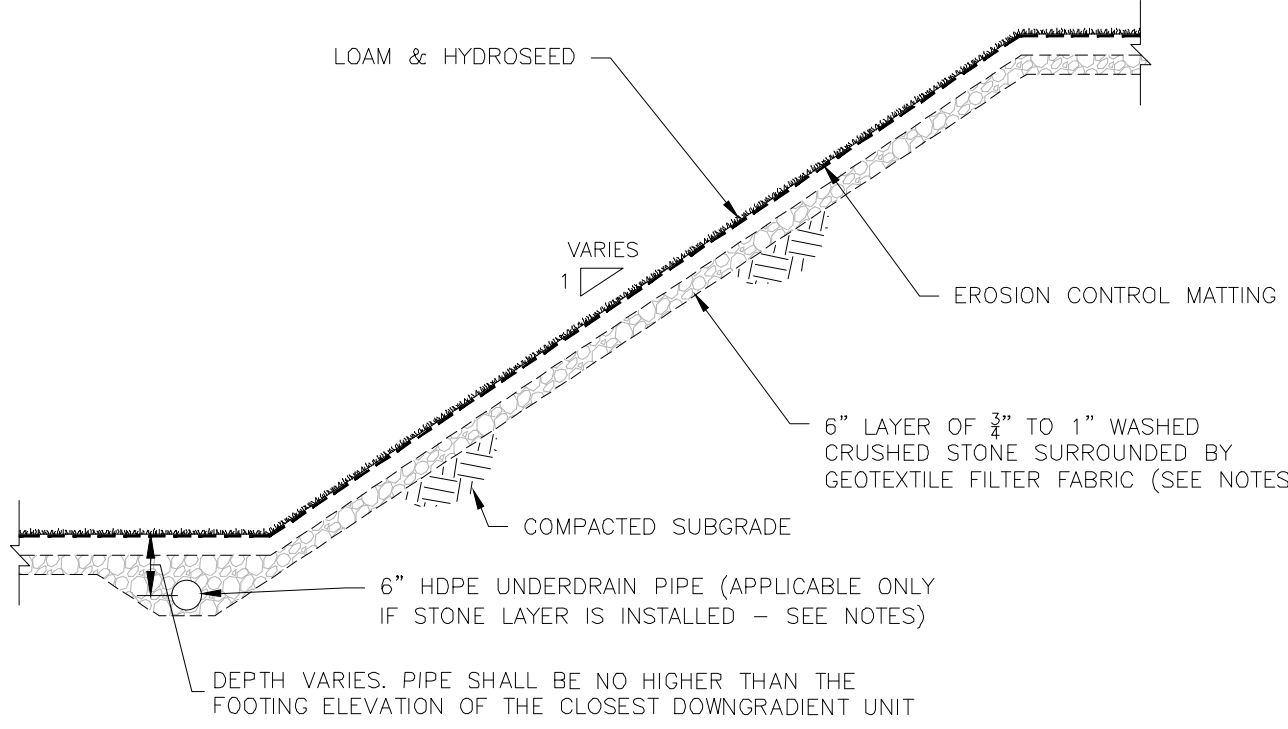


NOTES:

1. EROSION CONTROL BARRIER TO EXTEND AROUND ENTIRE STOCKPILE.
2. SEDIMENT TRAPPED BY THE EROSION CONTROL BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OF AS NEEDED.
3. EROSION CONTROL BARRIER SHALL BE MAINTAINED IN PLACE UNTIL STOCKPILE HAS BEEN ELIMINATED.

TYPICAL TEMPORARY STOCKPILE DETAIL

NOT TO SCALE

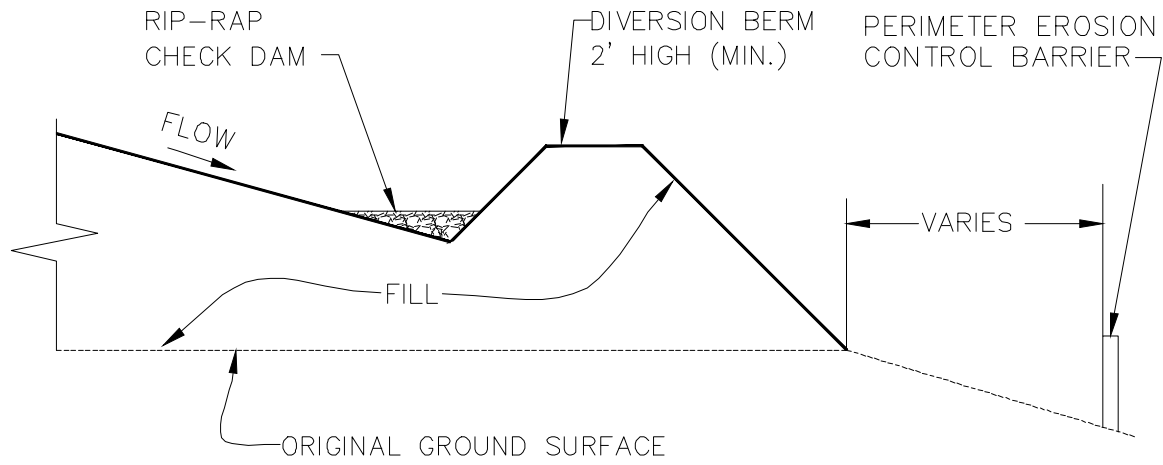


NOTES:

1. THIS DETAIL APPLIES TO ALL SLOPES 3H:1V AND STEEPER.
2. STONE LAYER AND ASSOCIATED UNDERDRAIN MAY BE OMITTED ON A CASE-BY-CASE BASIS AT THE DISCRETION OF THE OWNER AND FIELD ENGINEER.

TYPICAL SLOPE STABILIZATION DETAIL

NOT TO SCALE

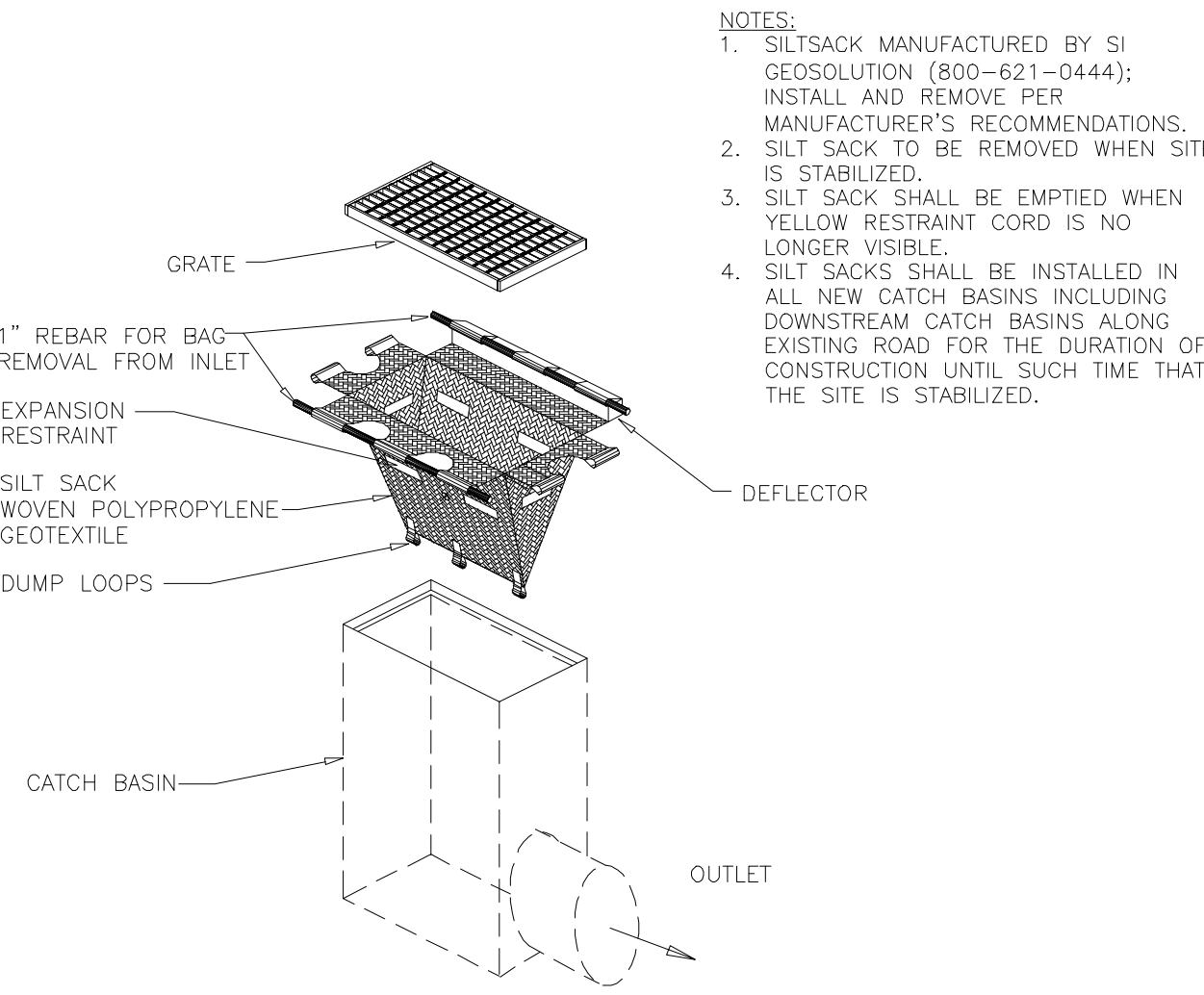


NOTES:

1. CHECK DAMS SHALL BE PROVIDED IN ALL UNSTABILIZED CHANNELS, SWALES AND ALONG DIVERSION BERMS AS NEEDED.
2. CHECK DAMS SHALL BE CLEANED OUT OF ALL DEBRIS AND SEDIMENT AS NEEDED.
3. ALL SEDIMENTATION BASIN BERMS SHALL BE 4' MIN. IN HEIGHT.

TYPICAL DIVERSION BERM DETAIL

NOT TO SCALE

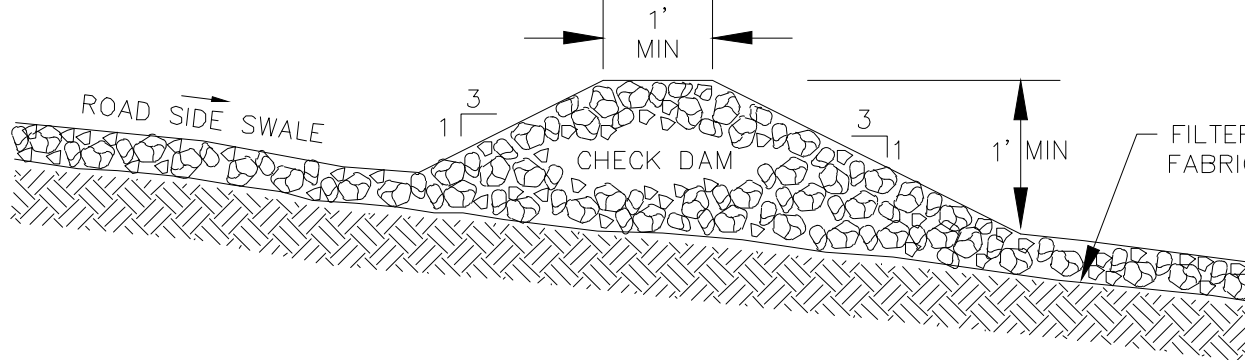


NOTES:

1. SILTSACK MANUFACTURED BY SI GEOSOLUTION (800-621-0444); INSTALL AND REMOVE PER MANUFACTURER'S RECOMMENDATIONS.
2. SILT SACK TO BE REMOVED WHEN SITE IS STABILIZED.
3. SILT SACK SHALL BE EMPTIED WHEN YELLOW RESTRAINT CORD IS NO LONGER VISIBLE.
4. SILT SACKS SHALL BE INSTALLED IN ALL NEW CATCH BASINS INCLUDING DOWNSTREAM CATCH BASINS ALONG EXISTING ROAD FOR THE DURATION OF CONSTRUCTION UNTIL SUCH TIME THAT THE SITE IS STABILIZED.

TYPICAL SILT SACK DETAIL

NOT TO SCALE

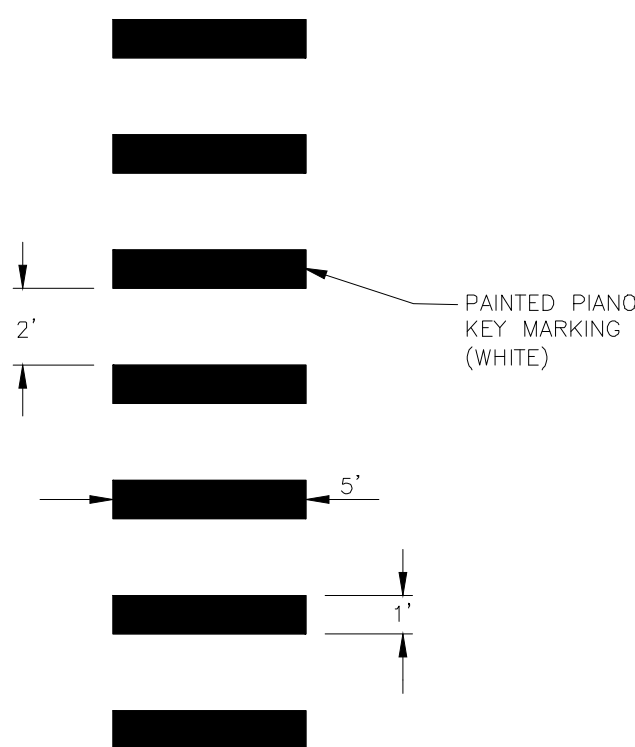


NOTES:

- CHECK DAM STONES SHALL BE ANGULAR AND WELL GRADED:
- MINIMUM STONE SIZE IS 2\"/>

RIP-RAP CHECK DETAIL

NOT TO SCALE

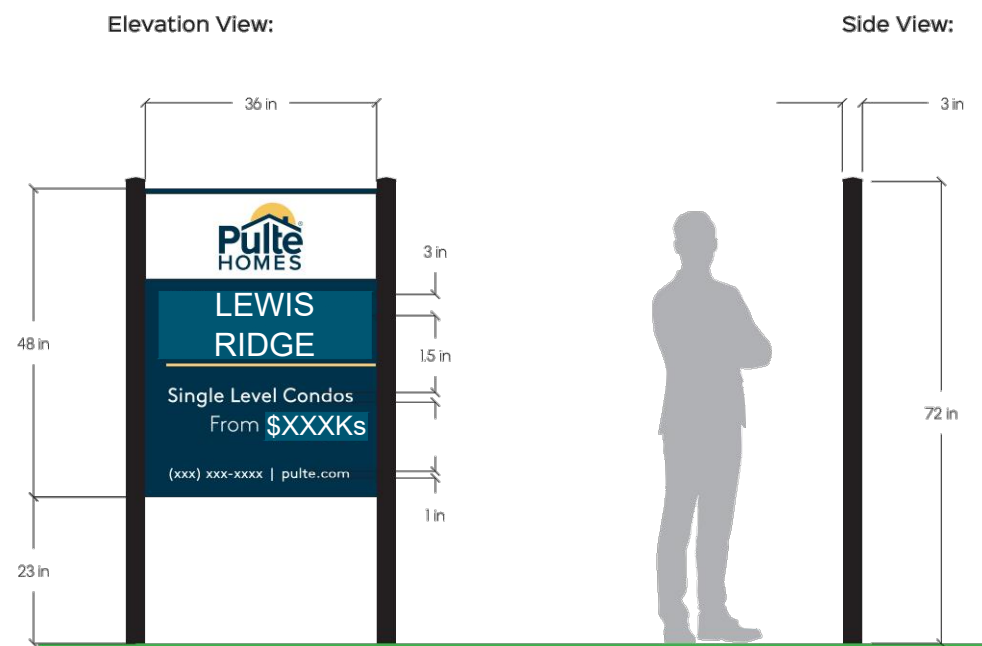


NOTES:

1. RAMP PORTION OF WHEELCHAIR CURB RAMP TO BE LOCATED FULLY WITHIN CROSSWALK.
2. CROSSWALK LENGTH VARIES - SEE LAYOUT PLANS.

TYPICAL PAINTED CROSSWALK DETAIL

NOT TO SCALE



QTY: 1
SIGN DESCRIPTION:
18\"/>

COLORS:
■ CMYK 100, 76, 45, 42
■ CMYK 4, 21, 75, 0

NOTES:

1. TO BE MOUNTED NEAR MAIN ENTRANCE(S) AS SHOWN ON PLANS.
2. EXACT WORDING MAY VARY. THIS IS AN EXAMPLE. CONTRACTOR SHALL CONFIRM WITH OWNER.

TEMPORARY COMMUNITY SALES SIGN

HARD HAT AREA
ALL VISITORS & CONTRACTORS MUST REPORT TO CONSTRUCTION OFFICE

NOTE:

TO BE MOUNTED AT LOCATION SPECIFIED BY CONSTRUCTION.

4'x4' HARD HAT SIGN

SALES OFFICE
OPEN DAILY 9-5
(508)XXX-XXXX

NOTE:

TO BE MOUNTED ON SALES TRAILER AND IN FRONT OF SALES OFFICE IN MODEL HOME.

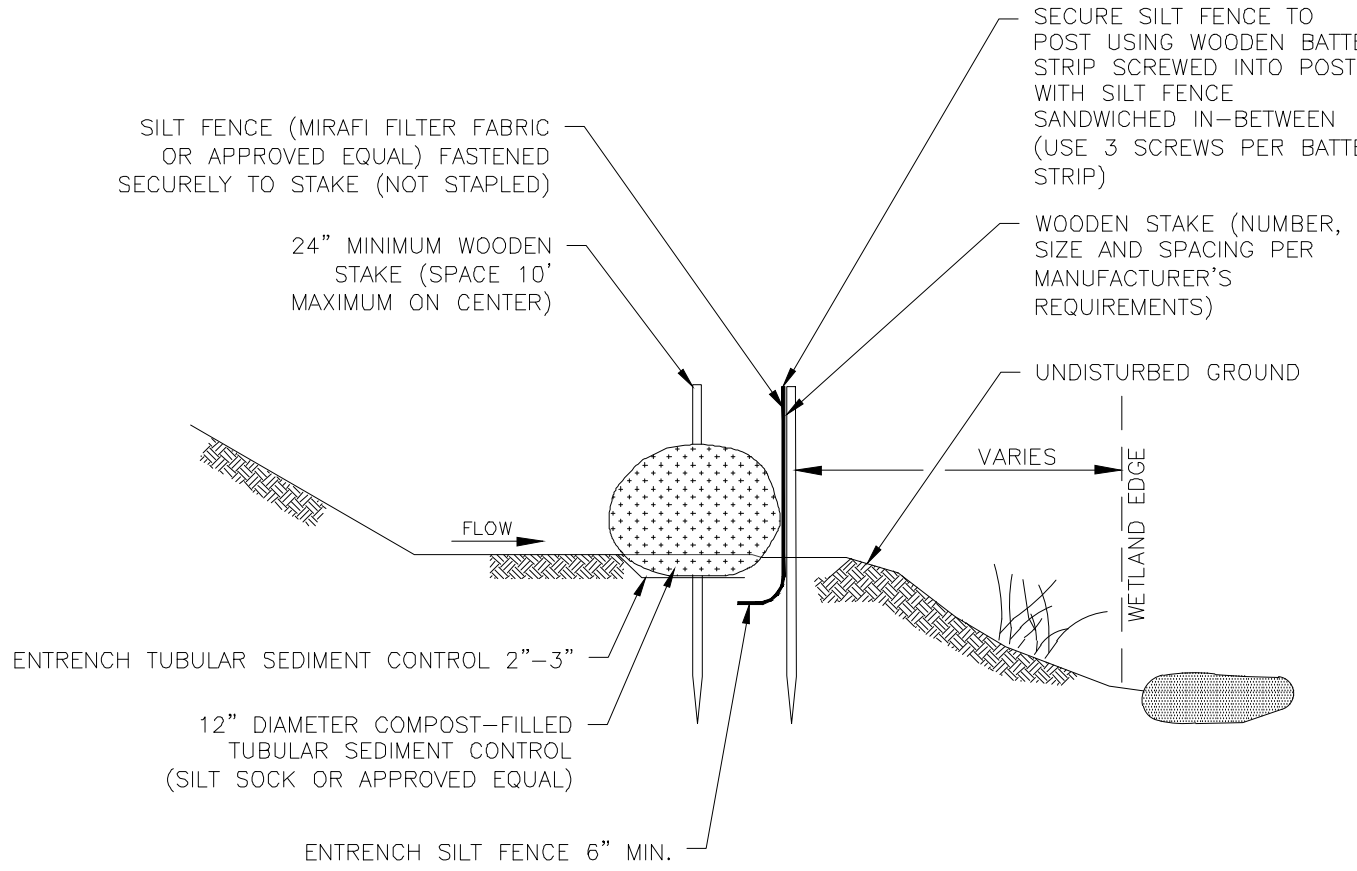
2'x2' SALES TRAILER SIGN

CONSTRUCTION OFFICE

NOTE:

TO BE MOUNTED ON CONSTRUCTION TRAILER.

2'-6"x3'-6" CONSTRUCTION TRAILER SIGN



TYPICAL EROSION CONTROL BARRIER DETAIL

NOT TO SCALE

PERMIT SET - NOT FOR CONSTRUCTION

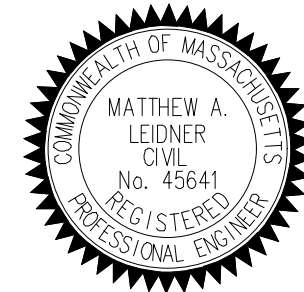
CDG PROJECT #: 25015

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PLANNING BOARD:

SEAL:



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PROJECT:

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SCALE:

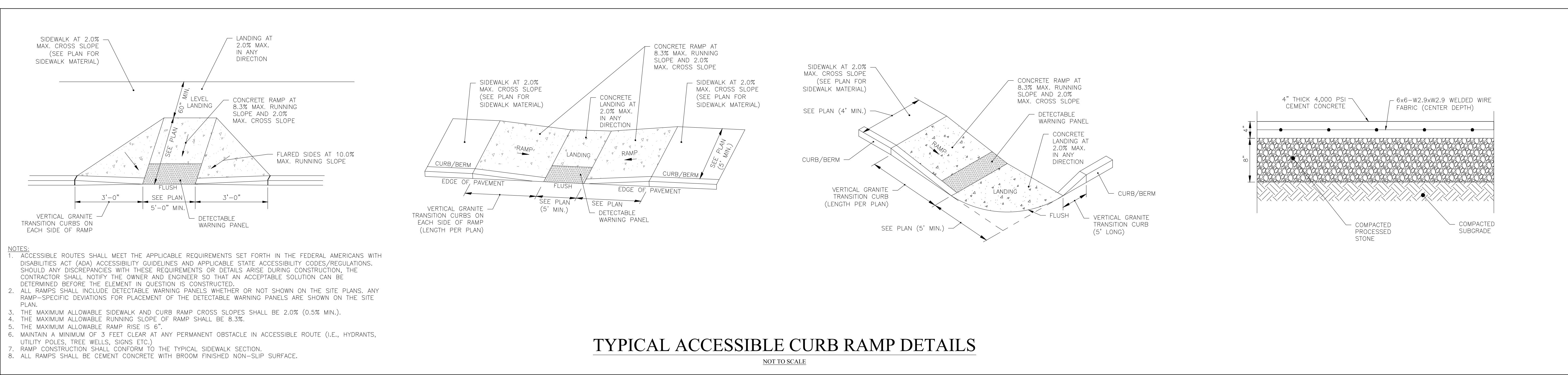
AS-NOTED

SHEET:

CONSTRUCTION DETAILS

8

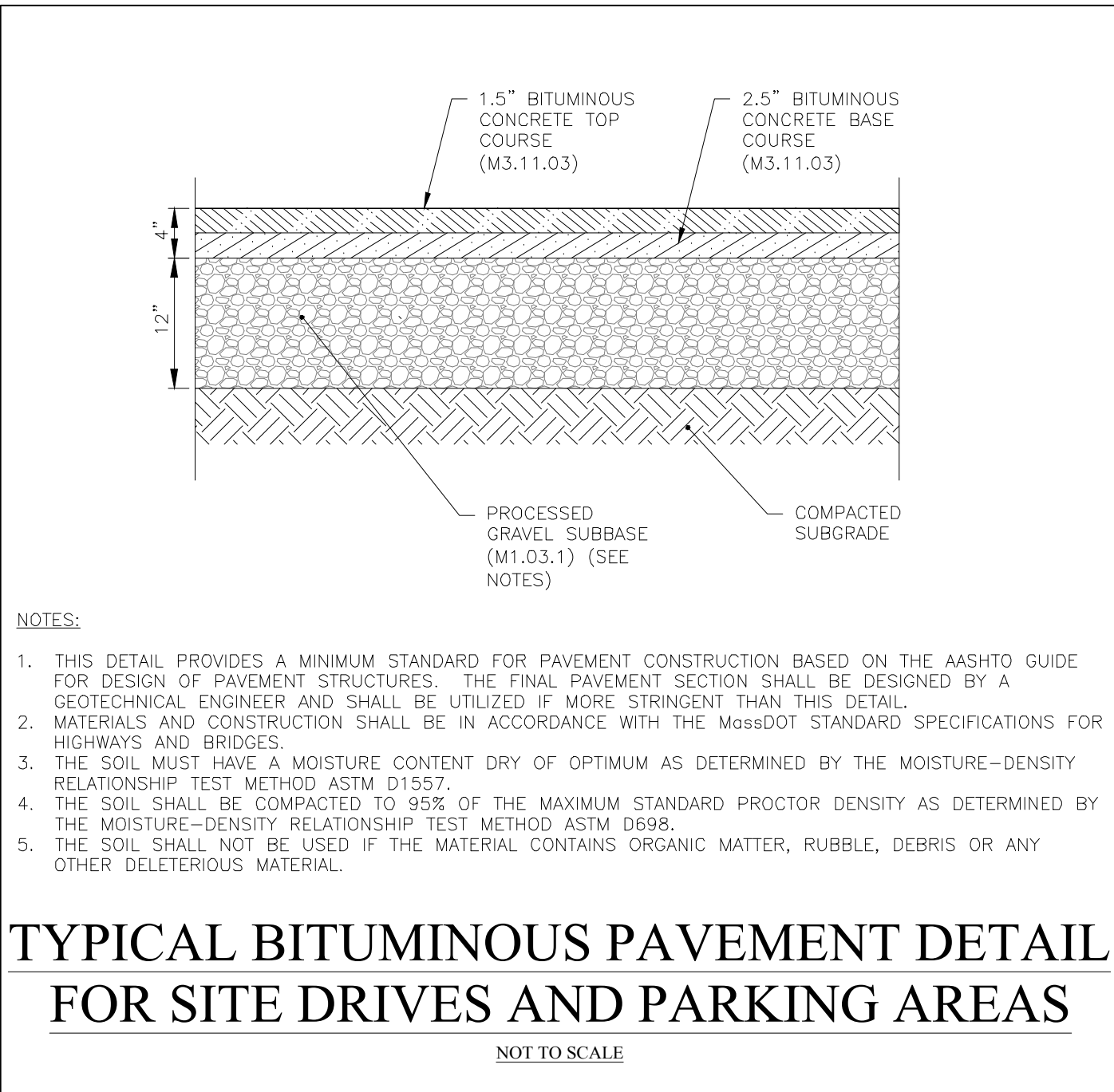
DATE: 04/13/2026



- NOTES:
1. ACCESSIBLE ROUTES SHALL MEET THE APPLICABLE REQUIREMENTS SET FORTH IN THE FEDERAL AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES AND APPLICABLE STATE ACCESSIBILITY CODES/REGULATIONS. SHOULD ANY DISCREPANCIES WITH THESE REQUIREMENTS OR DETAILS ARISE DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER SO THAT AN ACCEPTABLE SOLUTION CAN BE DETERMINED BEFORE THE ELEMENT IN QUESTION IS CONSTRUCTED.
 2. ALL RAMP SHALL INCLUDE DETECTABLE WARNING PANELS WHETHER OR NOT SHOWN ON THE SITE PLANS. ANY RAMP-SPECIFIC DEVIATIONS FOR PLACEMENT OF THE DETECTABLE WARNING PANELS ARE SHOWN ON THE SITE PLAN.
 3. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 2.0% (0.5% MIN.).
 4. THE MAXIMUM ALLOWABLE RUNNING SLOPE OF RAMP SHALL BE 8.3%.
 5. THE MAXIMUM ALLOWABLE RAMP RISE IS 8".
 6. MAINTAIN A MINIMUM OF 3 FEET CLEAR AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS ETC.)
 7. RAMP CONSTRUCTION SHALL CONFORM TO THE TYPICAL SIDEWALK SECTION.
 8. ALL RAMP SHALL BE CEMENT CONCRETE WITH BROOM FINISHED NON-SLIP SURFACE.

TYPICAL ACCESSIBLE CURB RAMP DETAILS

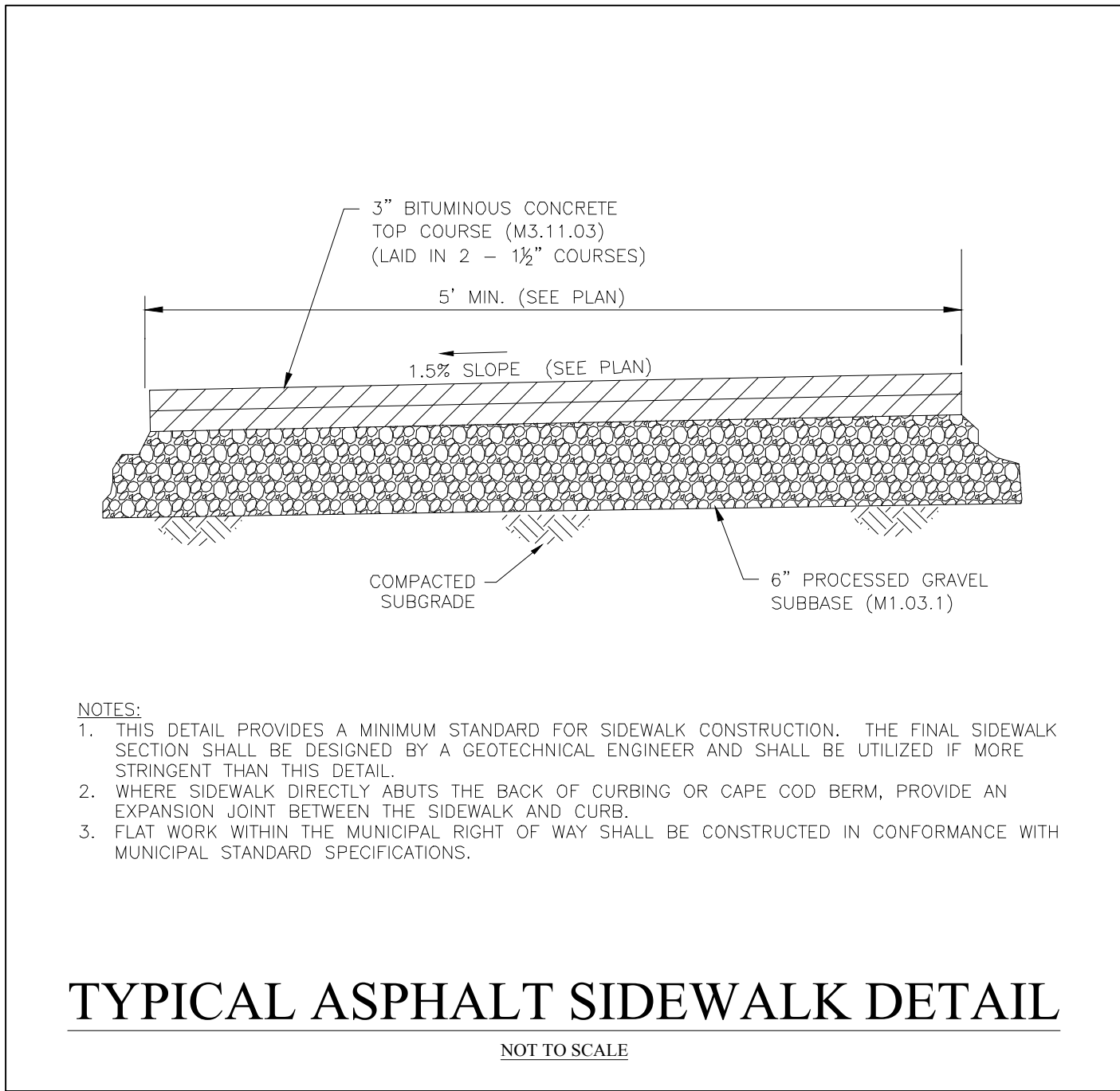
NOT TO SCALE



- NOTES:
1. THIS DETAIL PROVIDES A MINIMUM STANDARD FOR PAVEMENT CONSTRUCTION BASED ON THE AASHTO GUIDE FOR DESIGN OF PAVEMENT STRUCTURES. THE FINAL PAVEMENT SECTION SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER AND SHALL BE UTILIZED IF MORE STRINGENT THAN THIS DETAIL.
 2. MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MassDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
 3. THE SOIL MUST HAVE A MOISTURE CONTENT DRY OF OPTIMUM AS DETERMINED BY THE MOISTURE-DENSITY RELATIONSHIP TEST METHOD ASTM D1557.
 4. THE SOIL SHALL BE COMPACTED TO 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY AS DETERMINED BY THE MOISTURE-DENSITY RELATIONSHIP TEST METHOD ASTM D698.
 5. THE SOIL SHALL NOT BE USED IF THE MATERIAL CONTAINS ORGANIC MATTER, RUBBLE, DEBRIS OR ANY OTHER DELETERIOUS MATERIAL.

TYPICAL BITUMINOUS PAVEMENT DETAIL FOR SITE DRIVES AND PARKING AREAS

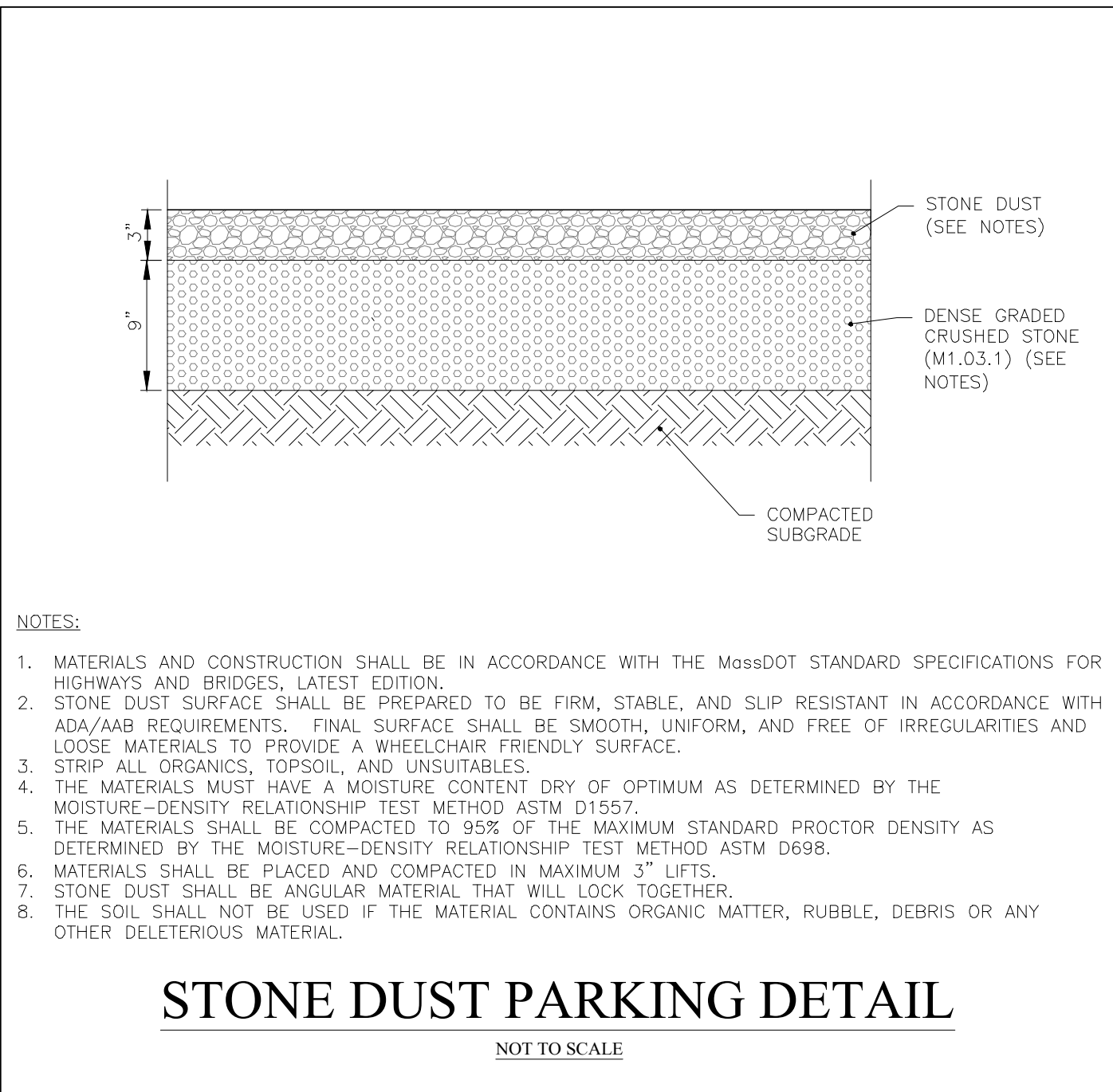
NOT TO SCALE



- NOTES:
1. THIS DETAIL PROVIDES A MINIMUM STANDARD FOR SIDEWALK CONSTRUCTION. THE FINAL SIDEWALK SECTION SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER AND SHALL BE UTILIZED IF MORE STRINGENT THAN THIS DETAIL.
 2. WHERE SIDEWALK DIRECTLY ABUTS THE BACK OF CURBING OR CAPE COD BERM, PROVIDE AN EXPANSION JOINT BETWEEN THE SIDEWALK AND CURB.
 3. FLAT WORK WITHIN THE MUNICIPAL RIGHT OF WAY SHALL BE CONSTRUCTED IN CONFORMANCE WITH MUNICIPAL STANDARD SPECIFICATIONS.

TYPICAL ASPHALT SIDEWALK DETAIL

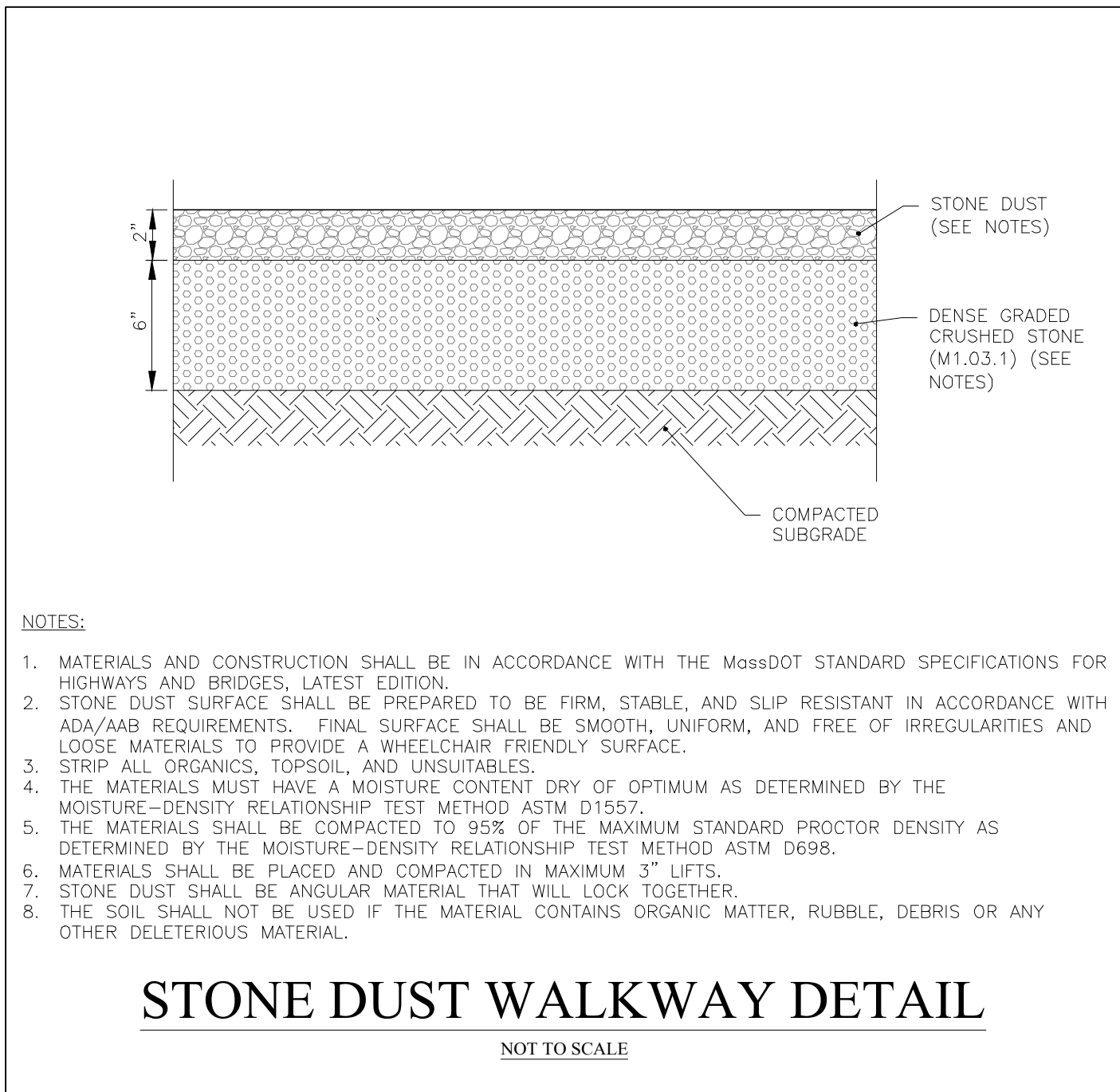
NOT TO SCALE



- NOTES:
1. MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MassDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
 2. STONE DUST SURFACE SHALL BE PREPARED TO BE FIRM, STABLE, AND SLIP RESISTANT IN ACCORDANCE WITH ADA/AB REQUIREMENTS. FINAL SURFACE SHALL BE SMOOTH, UNIFORM, AND FREE OF IRREGULARITIES AND LOOSE MATERIALS TO PROVIDE A WHEELCHAIR FRIENDLY SURFACE.
 3. STRIP ALL ORGANICS, TOPSOIL, AND UNSUITABLES.
 4. THE MATERIALS MUST HAVE A MOISTURE CONTENT DRY OF OPTIMUM AS DETERMINED BY THE MOISTURE-DENSITY RELATIONSHIP TEST METHOD ASTM D1557.
 5. THE MATERIALS SHALL BE COMPACTED TO 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY AS DETERMINED BY THE MOISTURE-DENSITY RELATIONSHIP TEST METHOD ASTM D698.
 6. MATERIALS SHALL BE PLACED AND COMPACTED IN MAXIMUM 3" LIFTS.
 7. STONE DUST SHALL BE ANGULAR MATERIAL THAT WILL LOCK TOGETHER.
 8. THE SOIL SHALL NOT BE USED IF THE MATERIAL CONTAINS ORGANIC MATTER, RUBBLE, DEBRIS OR ANY OTHER DELETERIOUS MATERIAL.

STONE DUST PARKING DETAIL

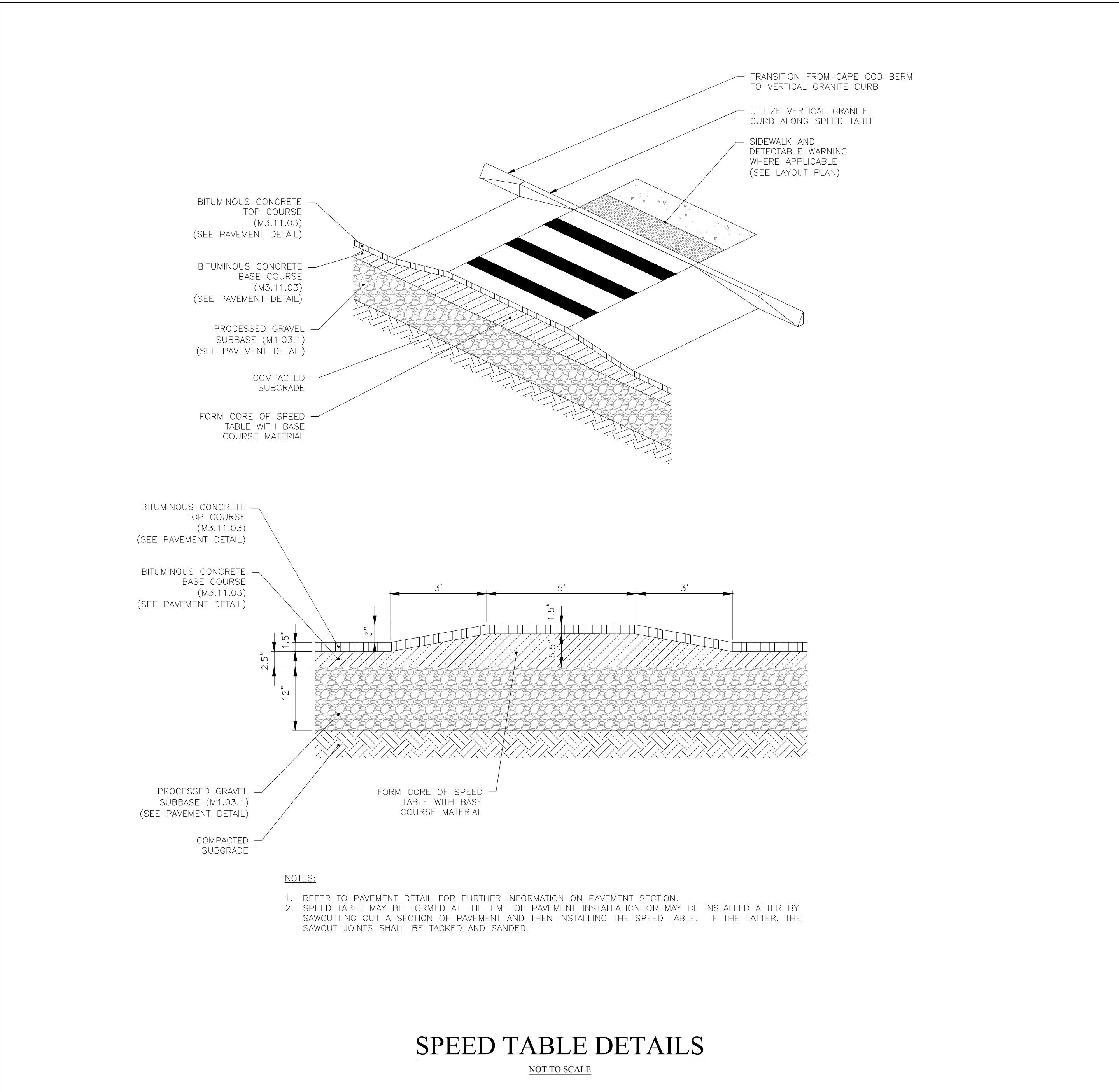
NOT TO SCALE



- NOTES:
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 7. STONE DUST SHALL BE ANGULAR MATERIAL THAT WILL LOCK TOGETHER.
 8. THE SOIL SHALL NOT BE USED IF THE MATERIAL CONTAINS ORGANIC MATTER, RUBBLE, DEBRIS OR ANY OTHER DELETERIOUS MATERIAL.

STONE DUST WALKWAY DETAIL

NOT TO SCALE



- NOTES:
1. REFER TO PAVEMENT DETAIL FOR FURTHER INFORMATION ON PAVEMENT SECTION.
 2. SPEED TABLE MAY BE FORMED AT THE TIME OF PAVEMENT INSTALLATION OR MAY BE INSTALLED AFTER BY SAWCUTTING OUT A SECTION OF PAVEMENT AND THEN INSTALLING THE SPEED TABLE. IF THE LATTER, THE SAWCUT JOINTS SHALL BE TACKED AND SANDED.

SPEED TABLE DETAILS

NOT TO SCALE

PERMIT SET - NOT FOR CONSTRUCTION

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PLANNING BOARD:

SEAL:



Matthew A. Leidner
MATTHEW A. LEIDNER, P.E.

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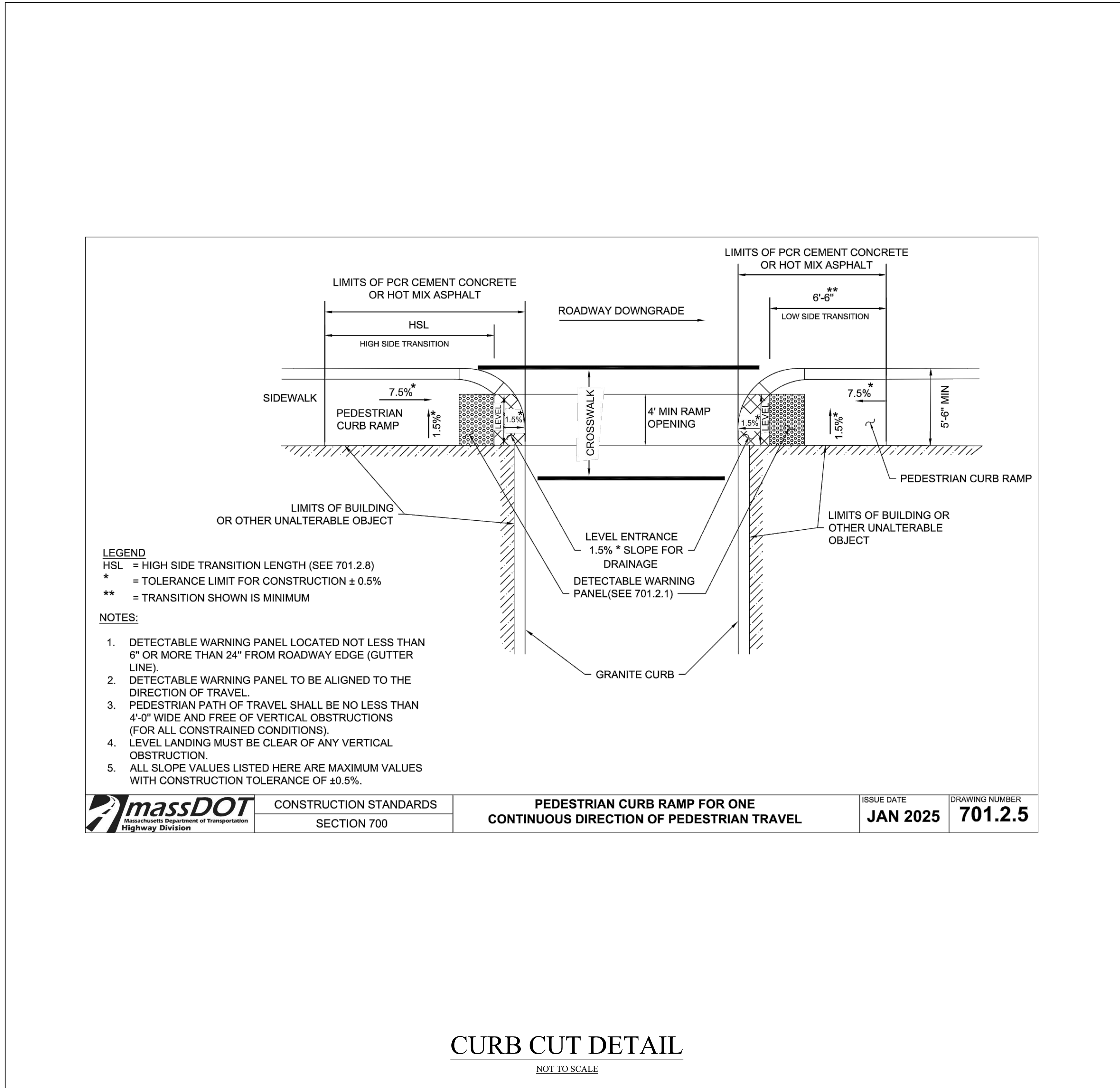
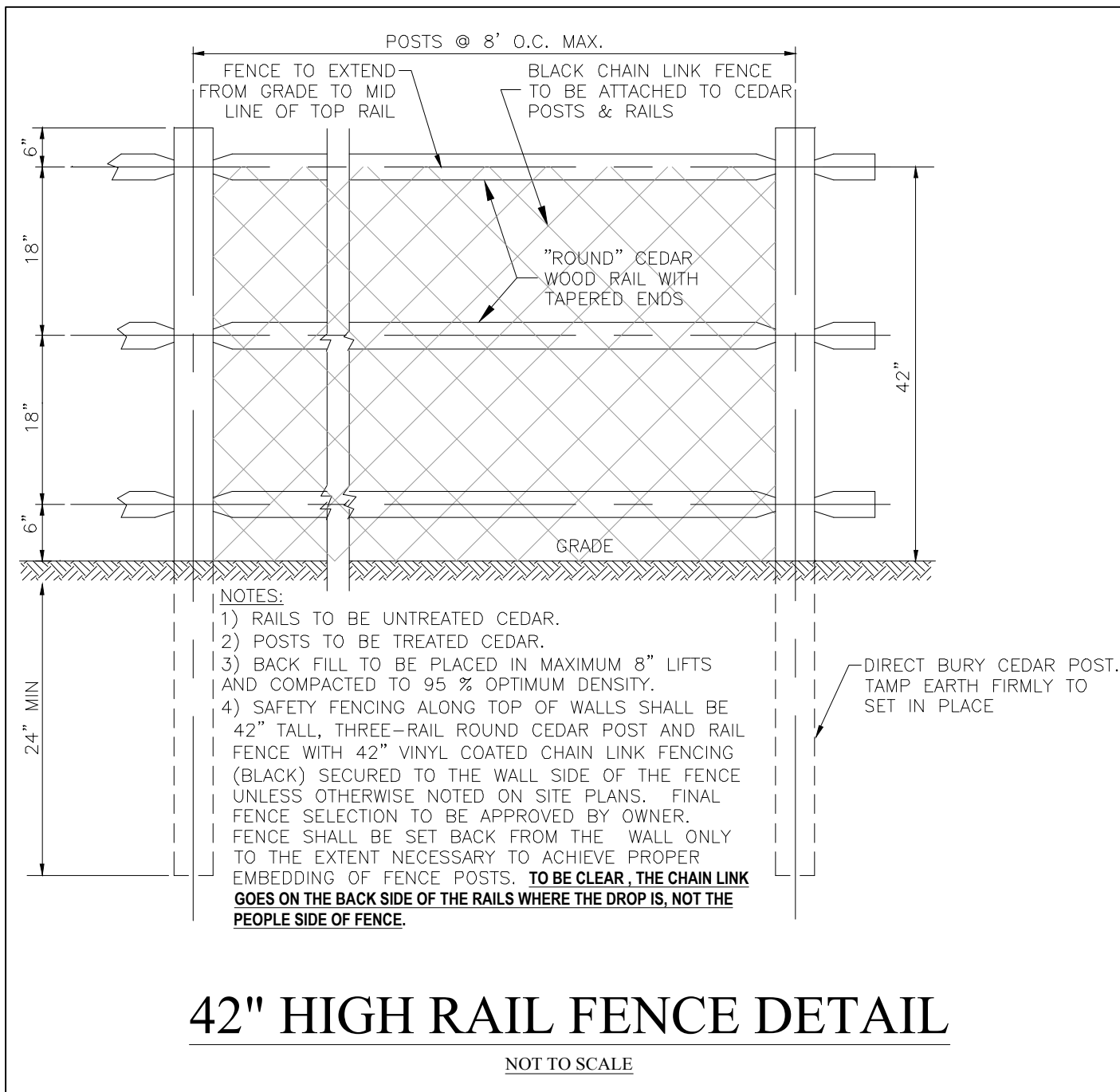
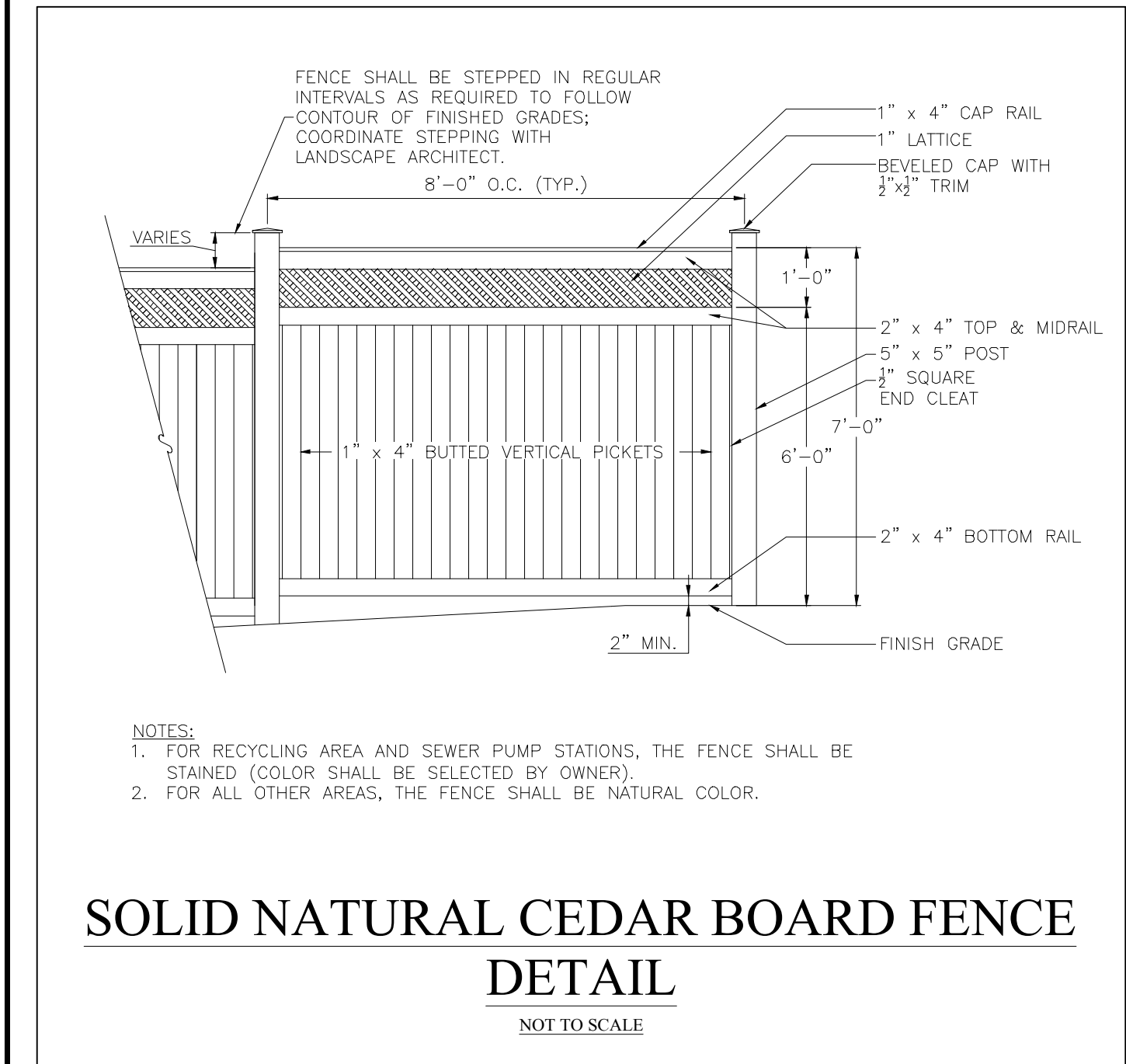
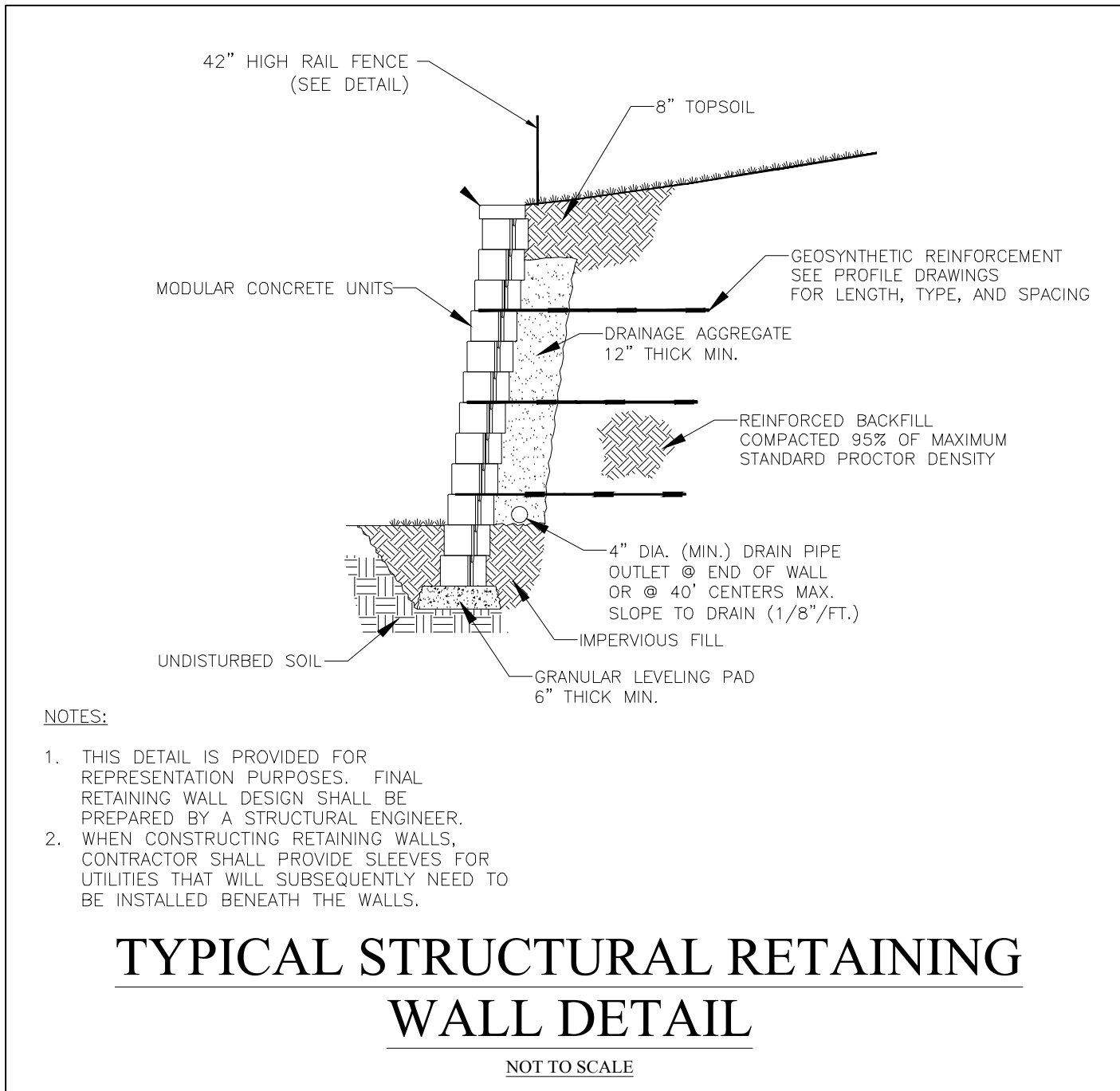
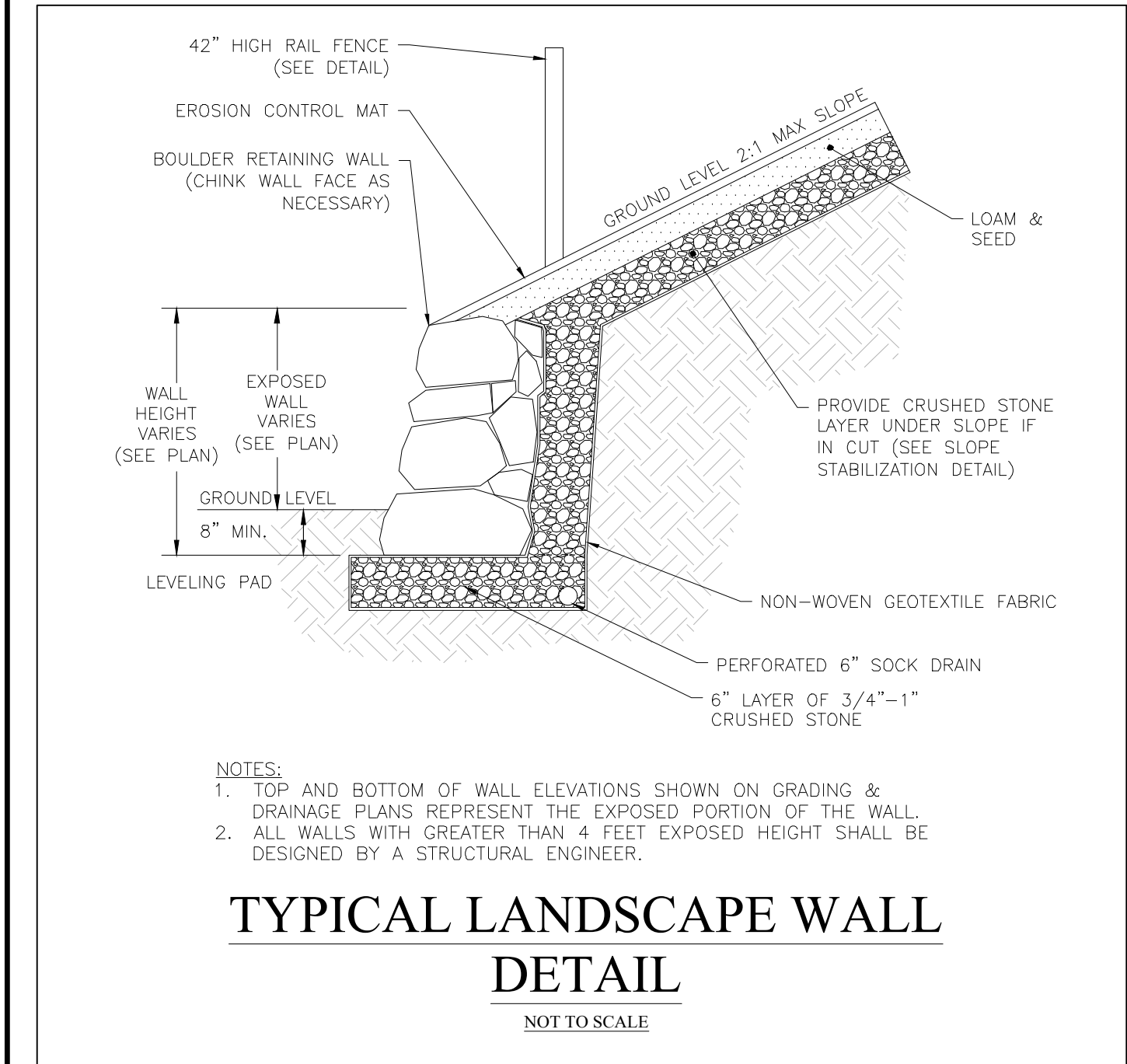
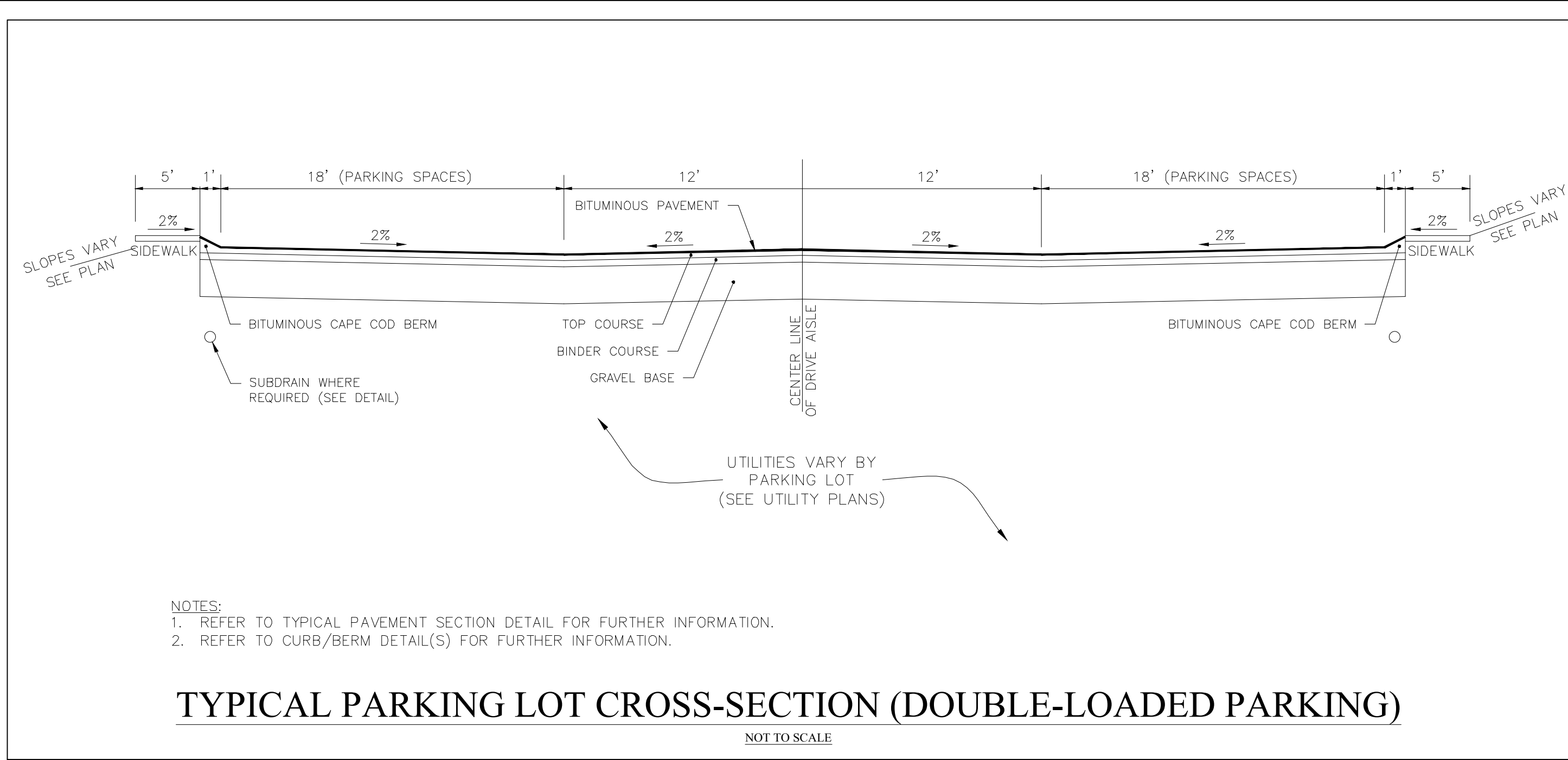
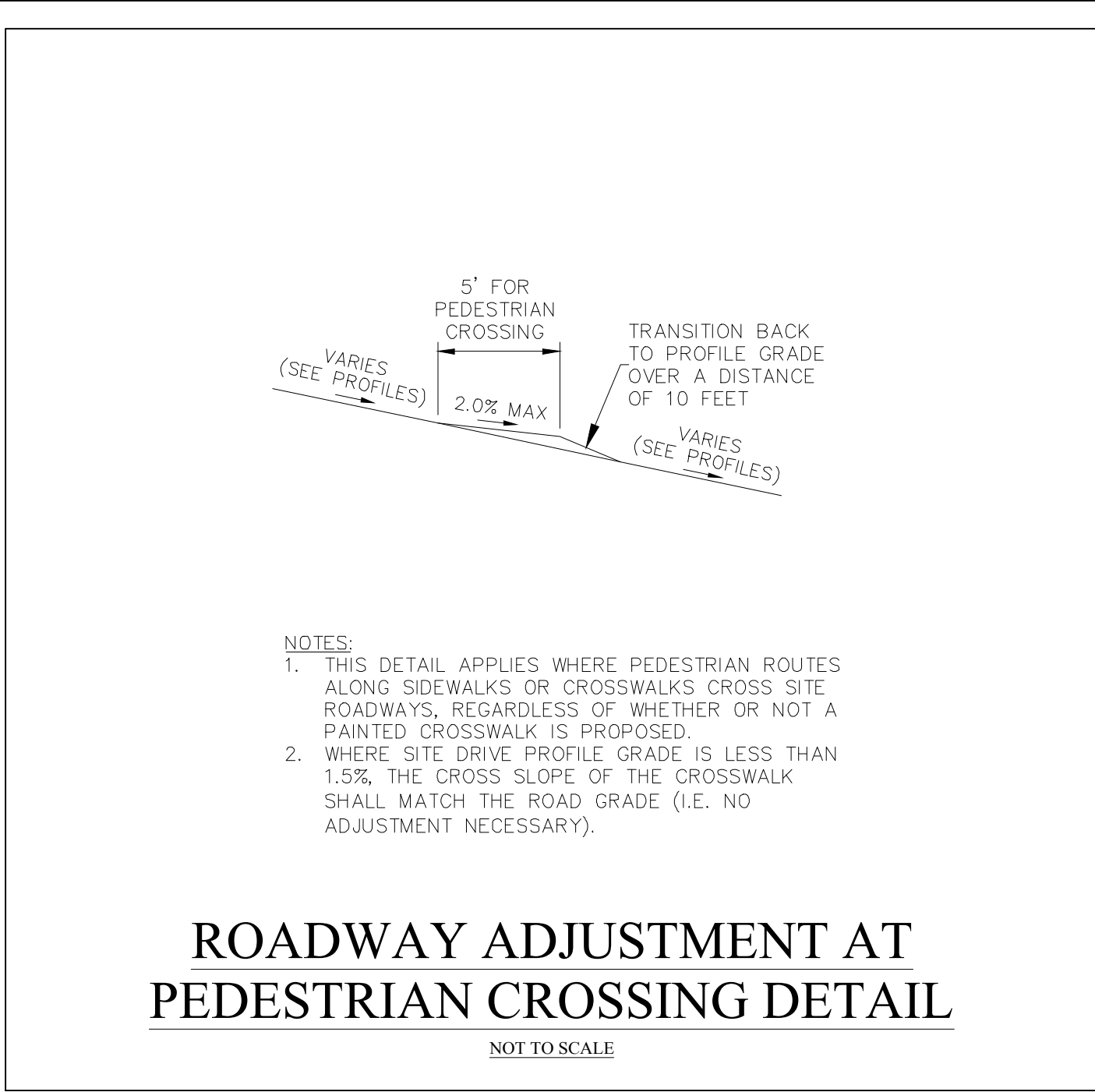
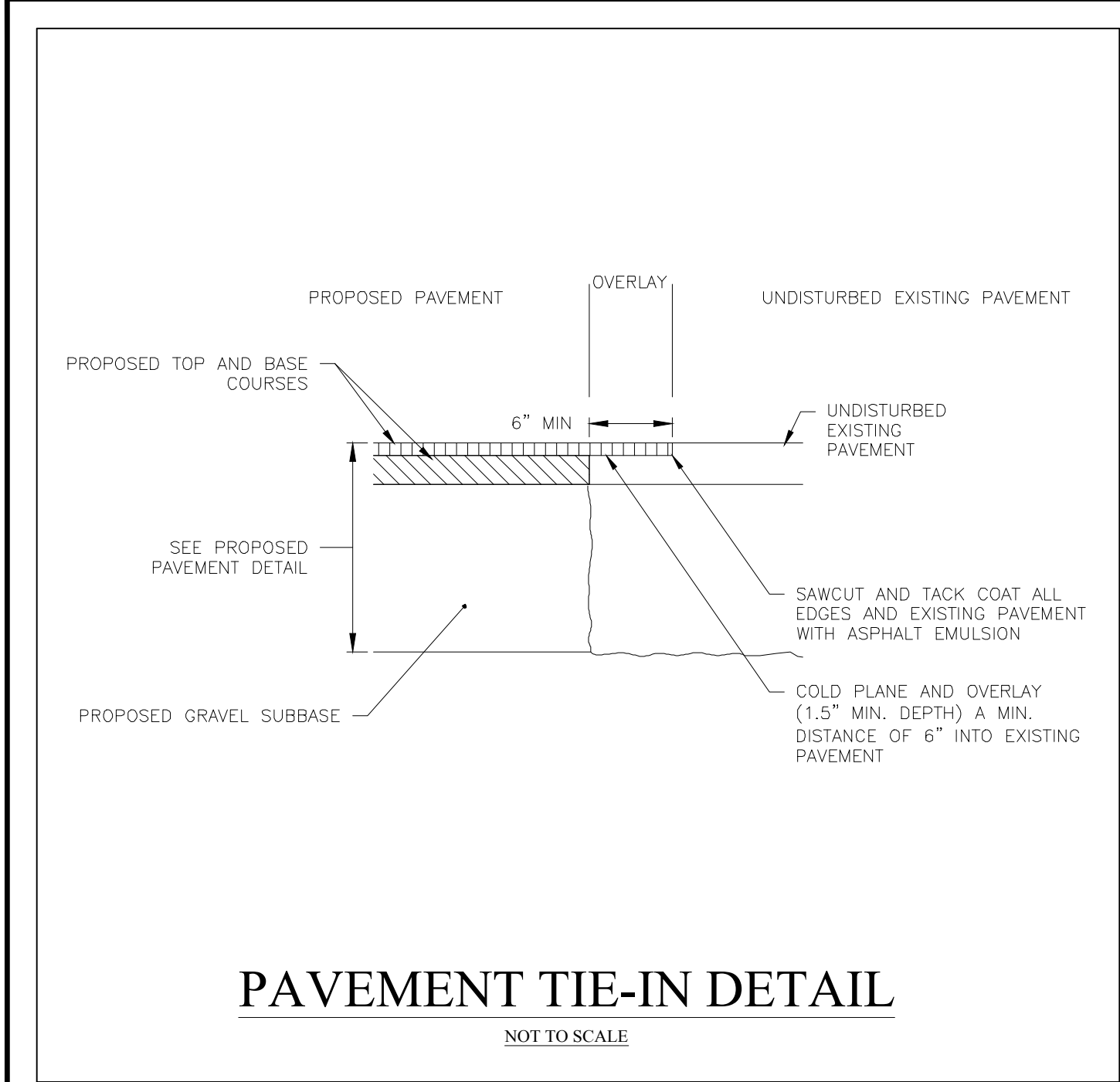
AS-NOTED

SHEET:

CONSTRUCTION DETAILS

9

DATE: 04/13/2026



PERMIT SET - NOT FOR CONSTRUCTION		
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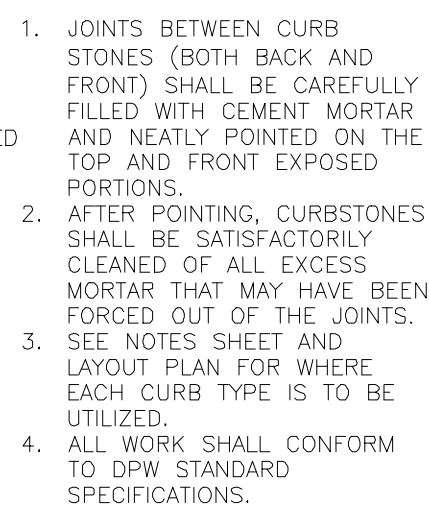
CONSTRUCTION DETAILS

10

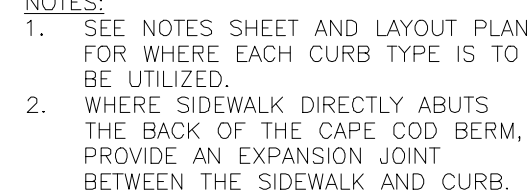
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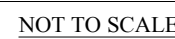
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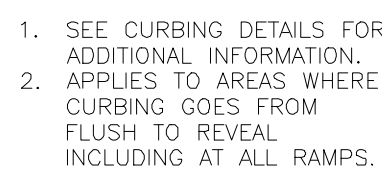
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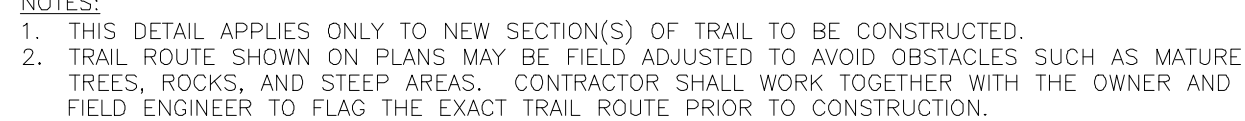
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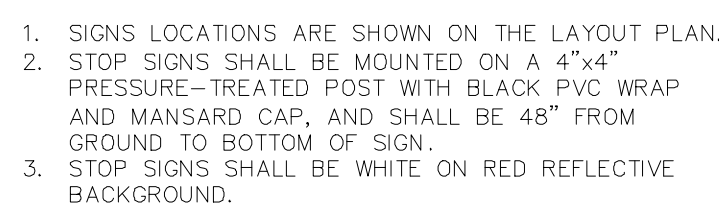
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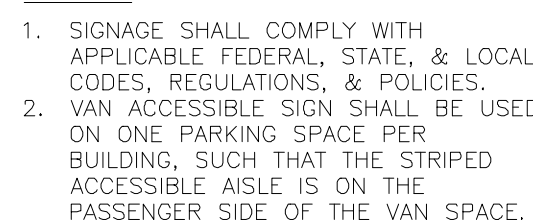
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NOT TO SCALE

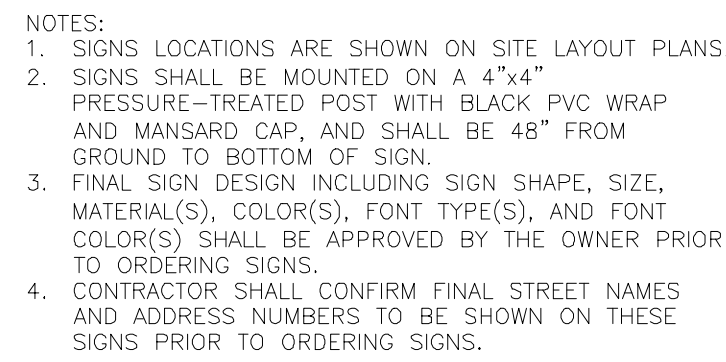


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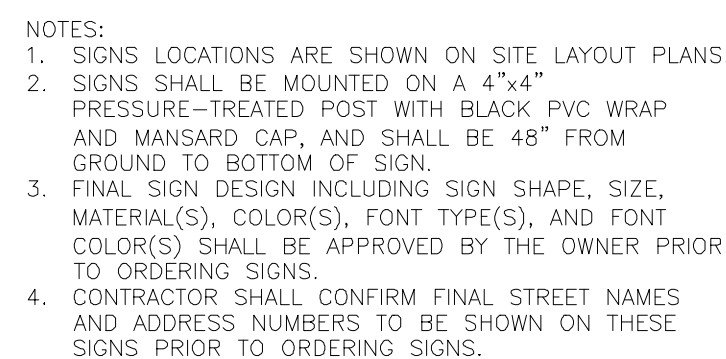


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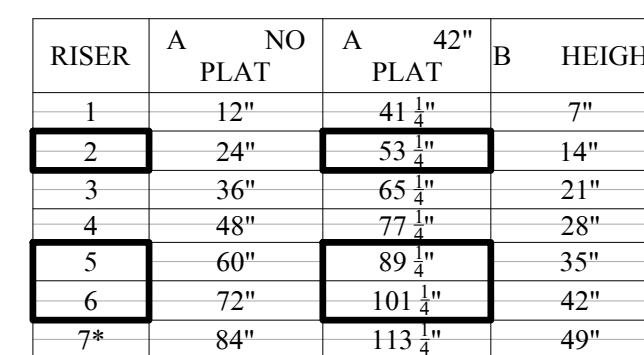
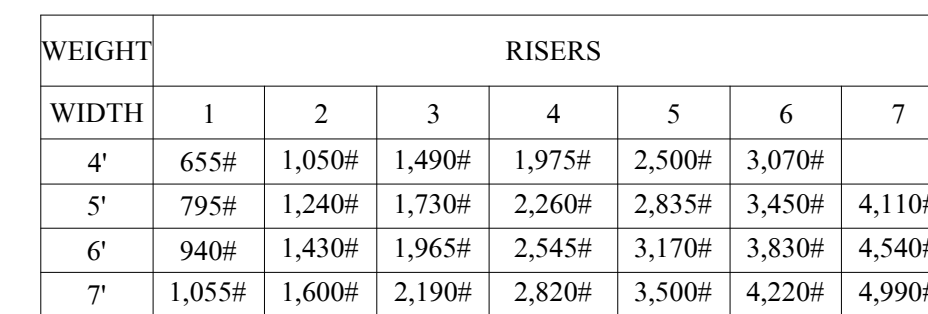
DATE: 04/13/2026



NOT TO SCALE



NOT TO SCALE



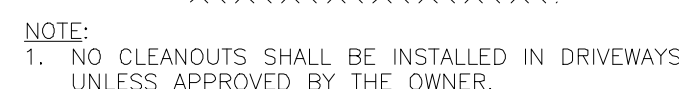
D WIDTH	E OUTSIDE CORE WIDTH	F INSIDE CORE WIDTH	C PLATFORM LENGTH
4'	47"	42"	42"
5'	59"	53 $\frac{1}{2}$ "	42"
6'	71"	65 $\frac{1}{2}$ "	42"
7'	82"	78"	42"

*7 RISERS NOT AVAILABLE IN 4' WIDE

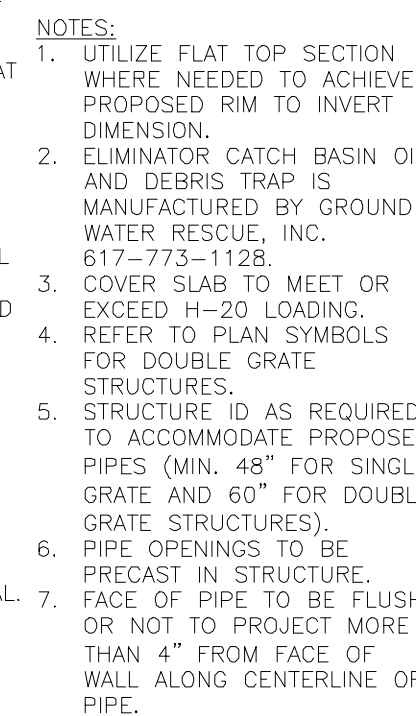
NOTES:

1. STEPS SHALL BE PRECAST CONCRETE BY SHEA CONCRETE PRODUCTS OR APPROVED EQUAL.
2. STEPS SHALL HAVE 7" TALL RISERS WITH 12" DEEP TREADS AND 42" LANDINGS.
3. RAILING MATERIAL, COLOR, AND DESIGN SHALL BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION.
4. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
5. LOAD RATING: 300psf
6. REINFORCEMENT #3 GRADE 60.
7. TREADS AND PLATFORM BROOM FINISHED.

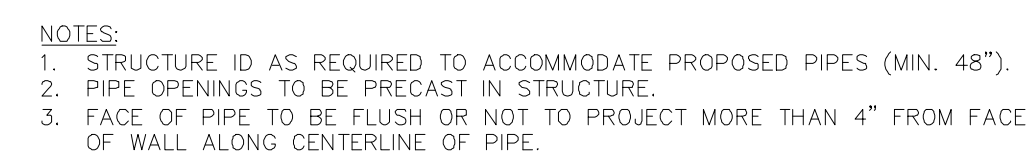
NOT TO SCALE



NOT TO SCALE



NOT TO SCALE



NOT TO SCALE

PLANNING BOARD:

SEAL:



MATTHEW A. LEIDNER, P.E.

PREPARED BY:

CIVIL DESIGN
GROUP, LLC

4 HIGH STREET, SUITE 155
NORTH ANDOVER, MA 01845
www.cdgengineering.com
p: 978-794-5400 f: 978-965-3971

PREPARED FOR:



PROJECT:

28 HAVERHILL ROAD (ROUTE 110)
AMESBURY, MA

SCALE:

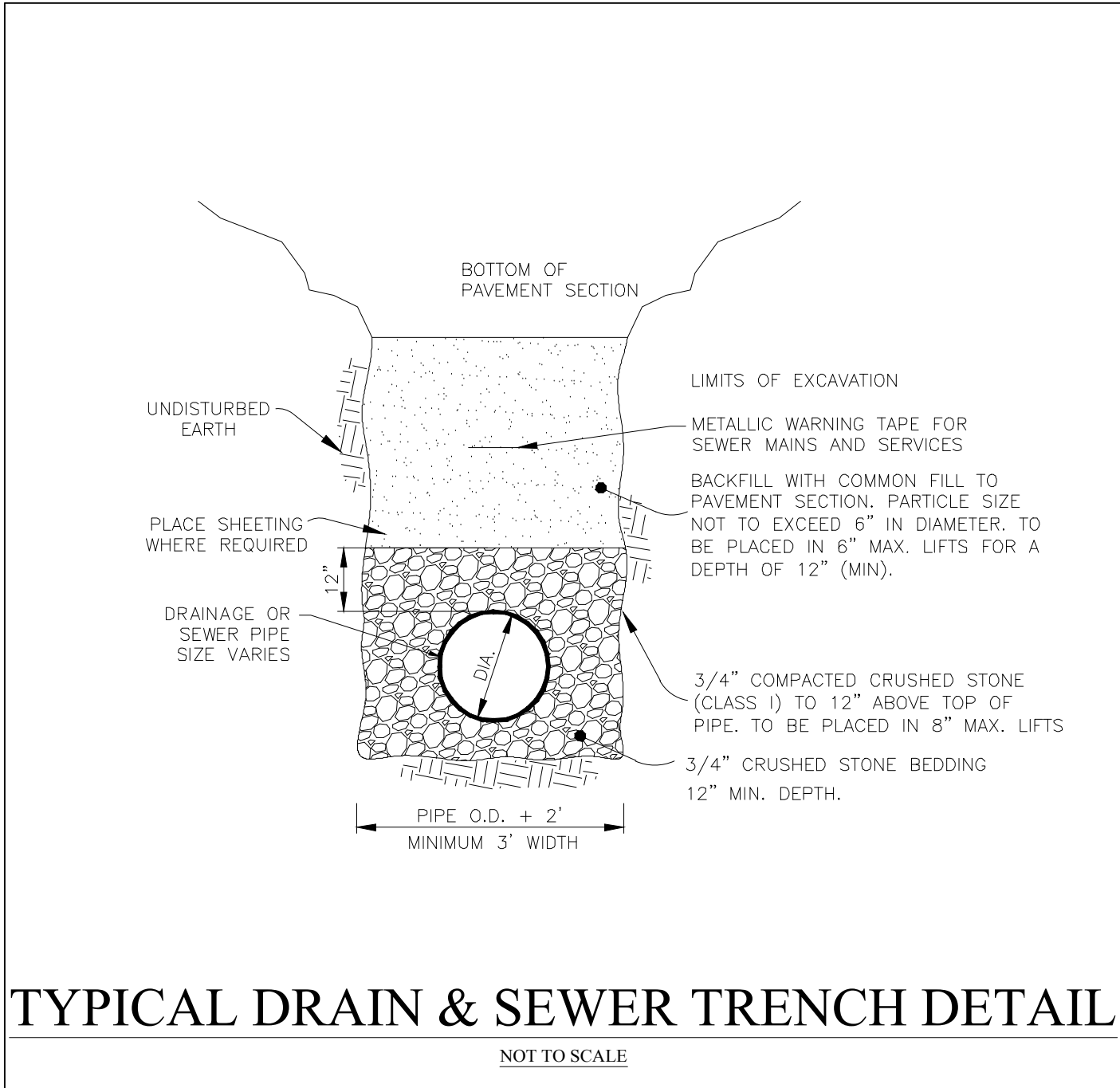
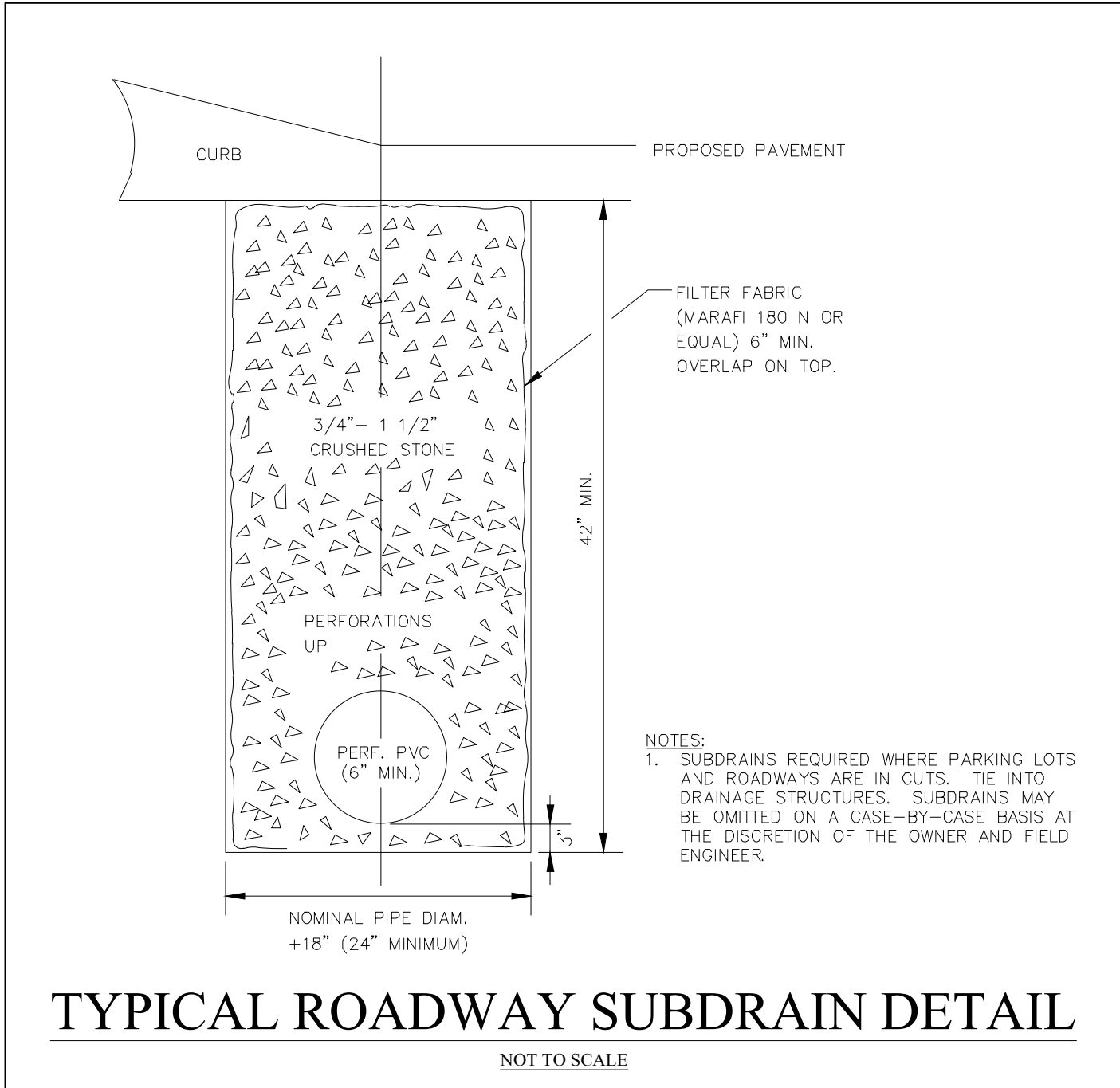
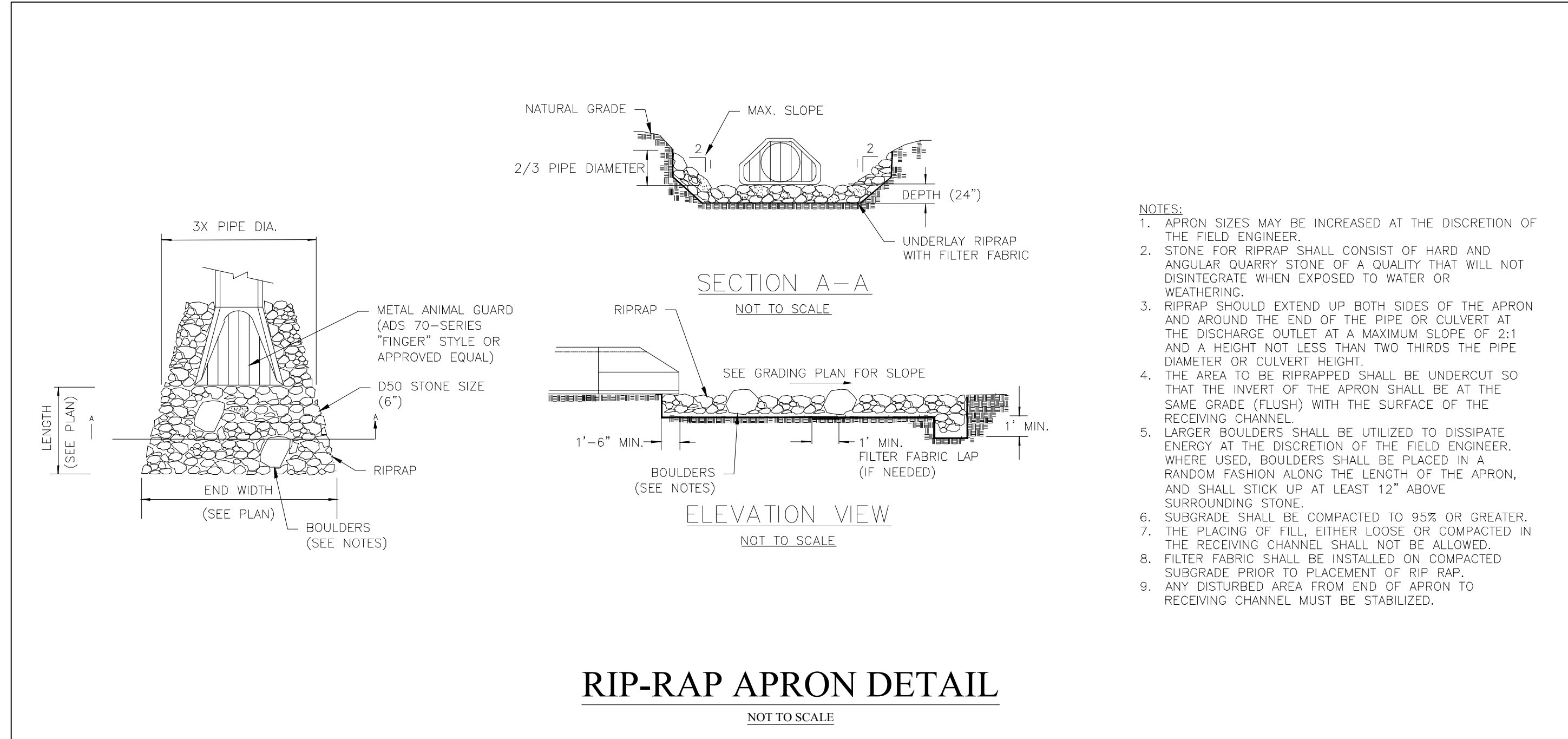
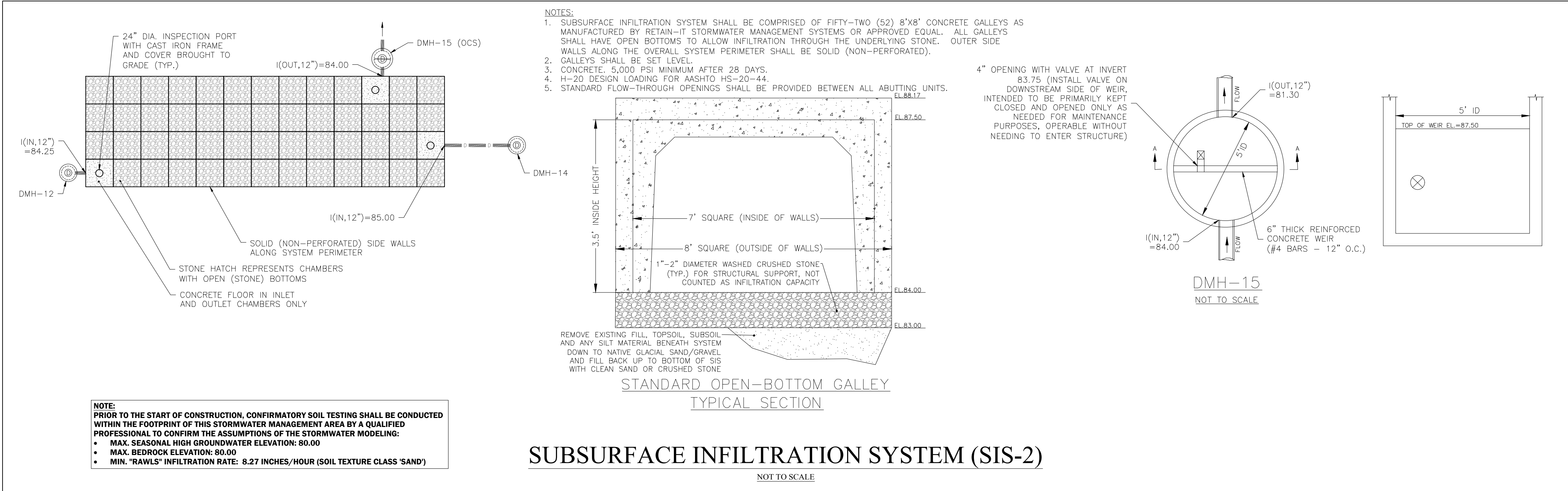
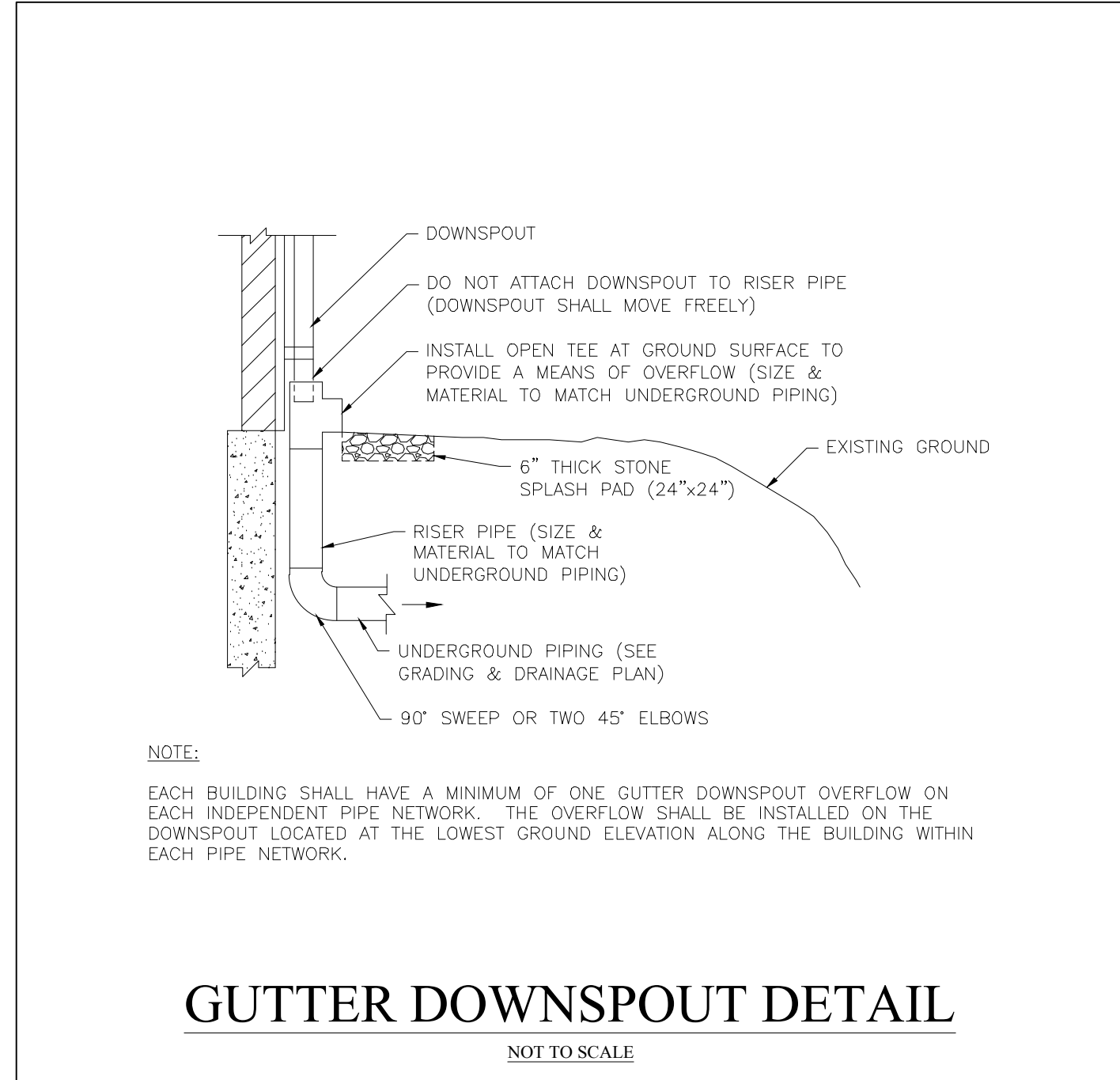
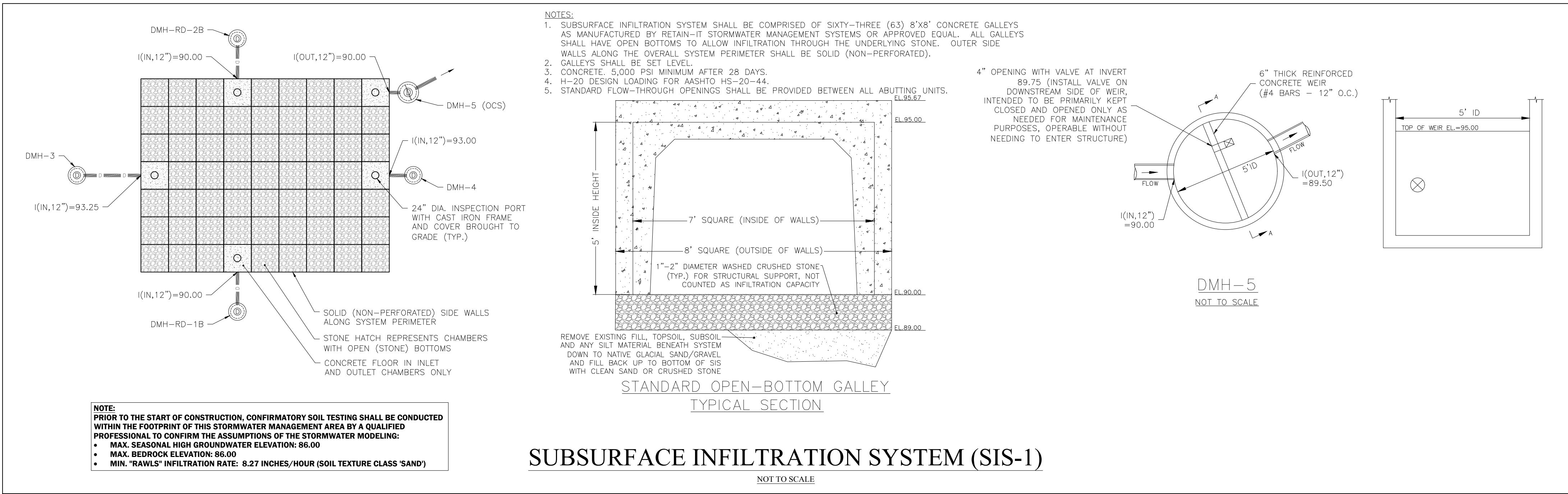
AS-NOTED

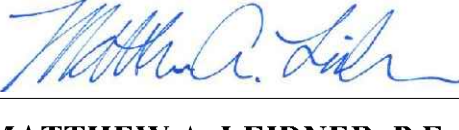
SHEET:

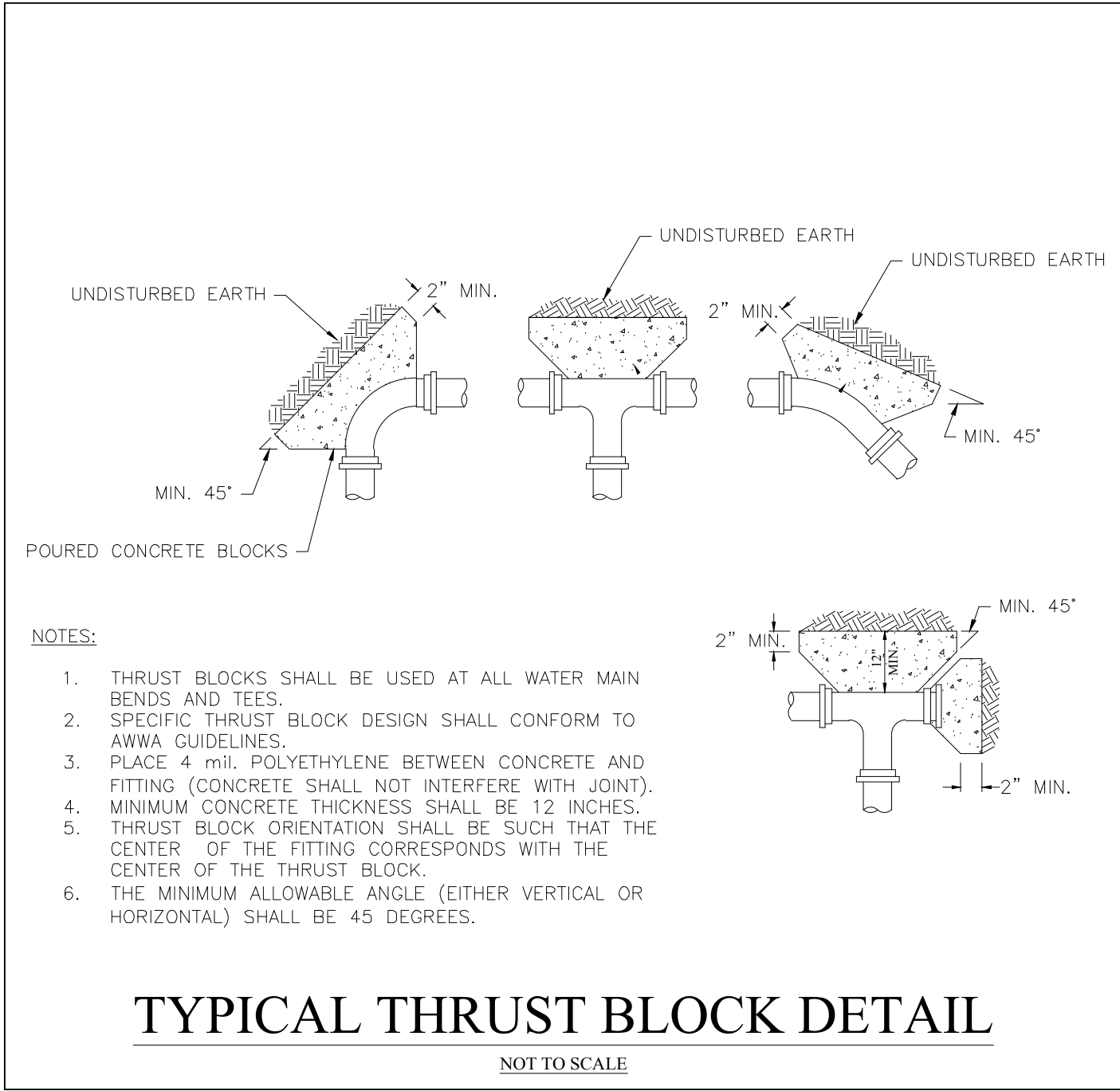
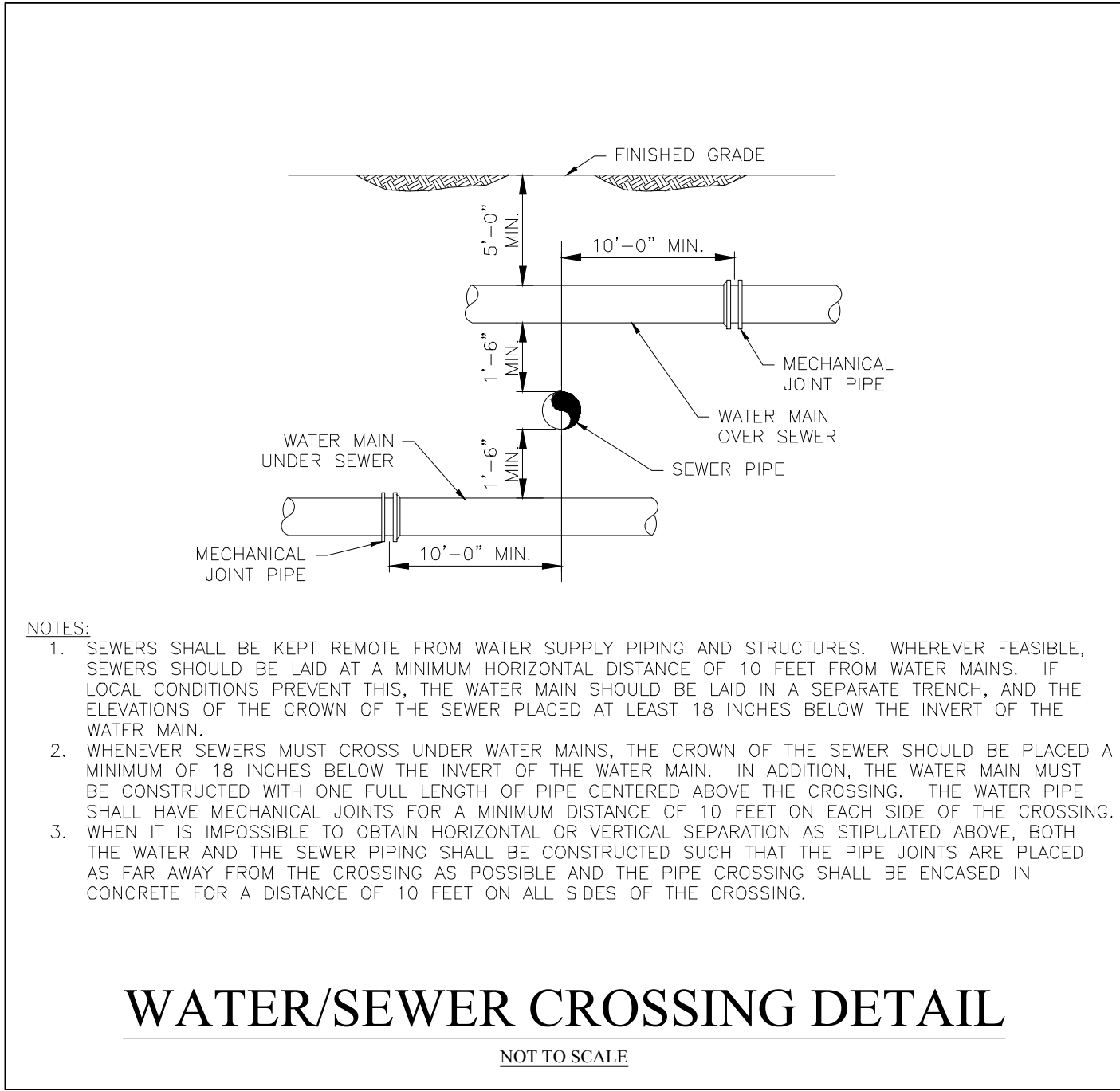
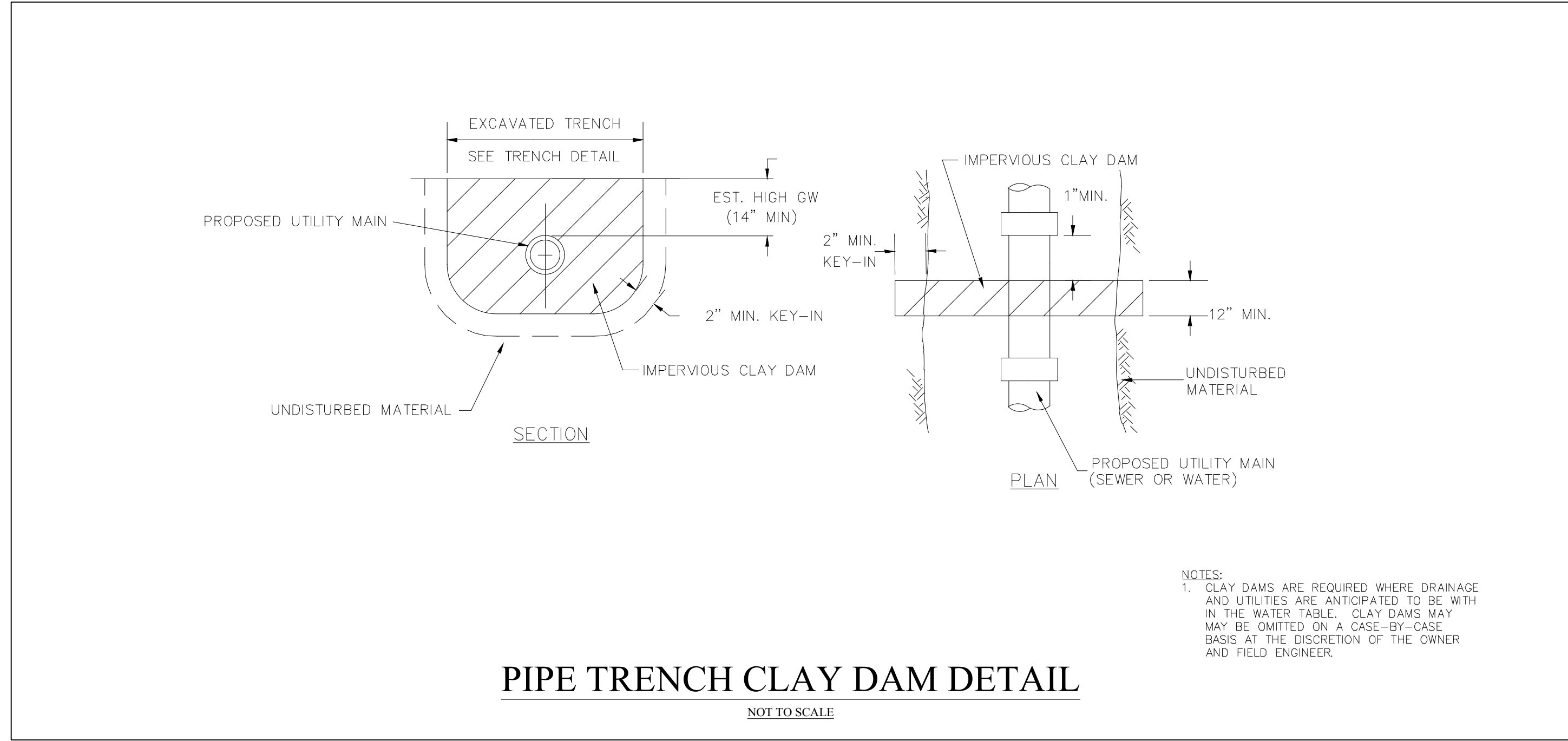
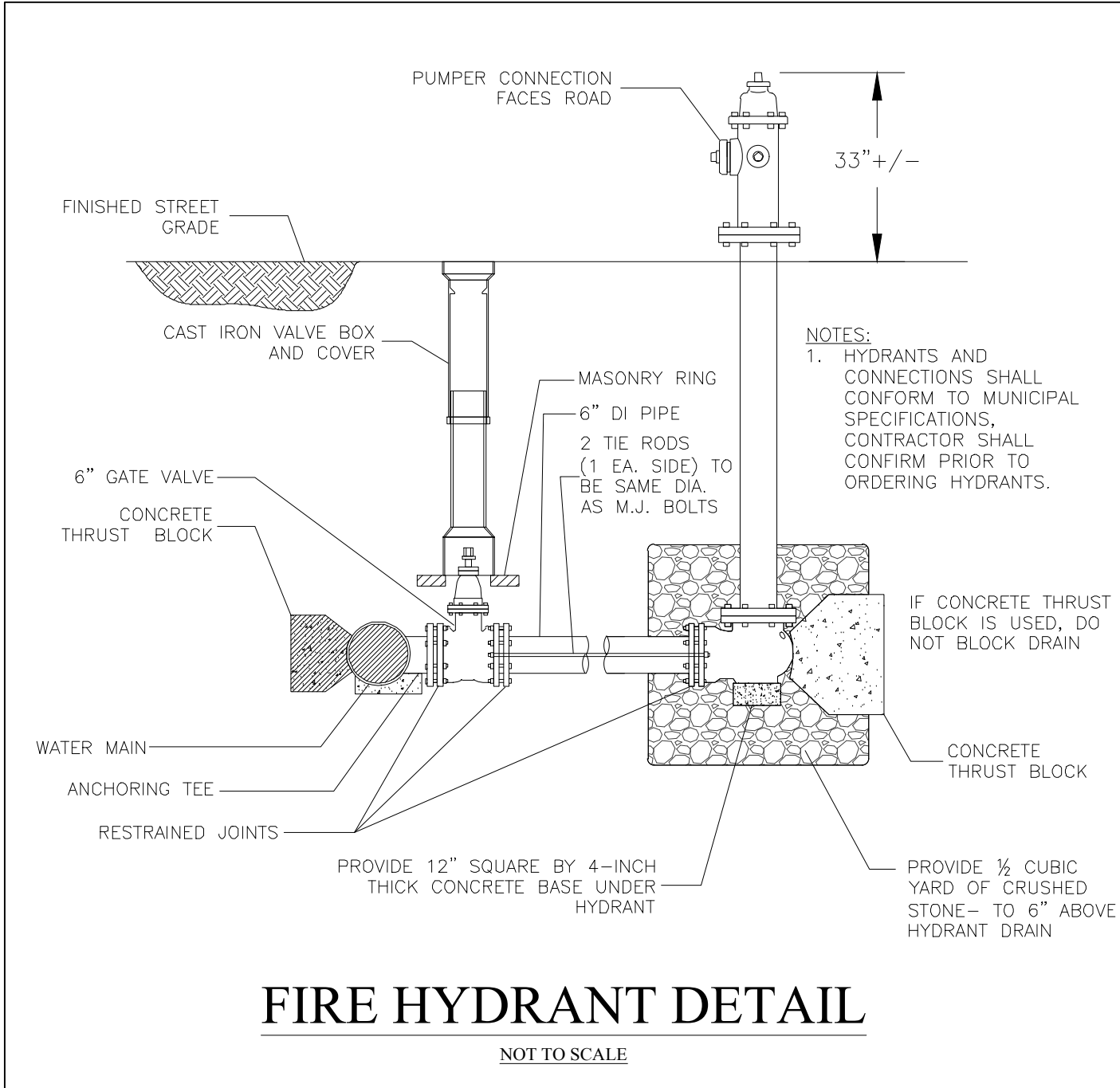
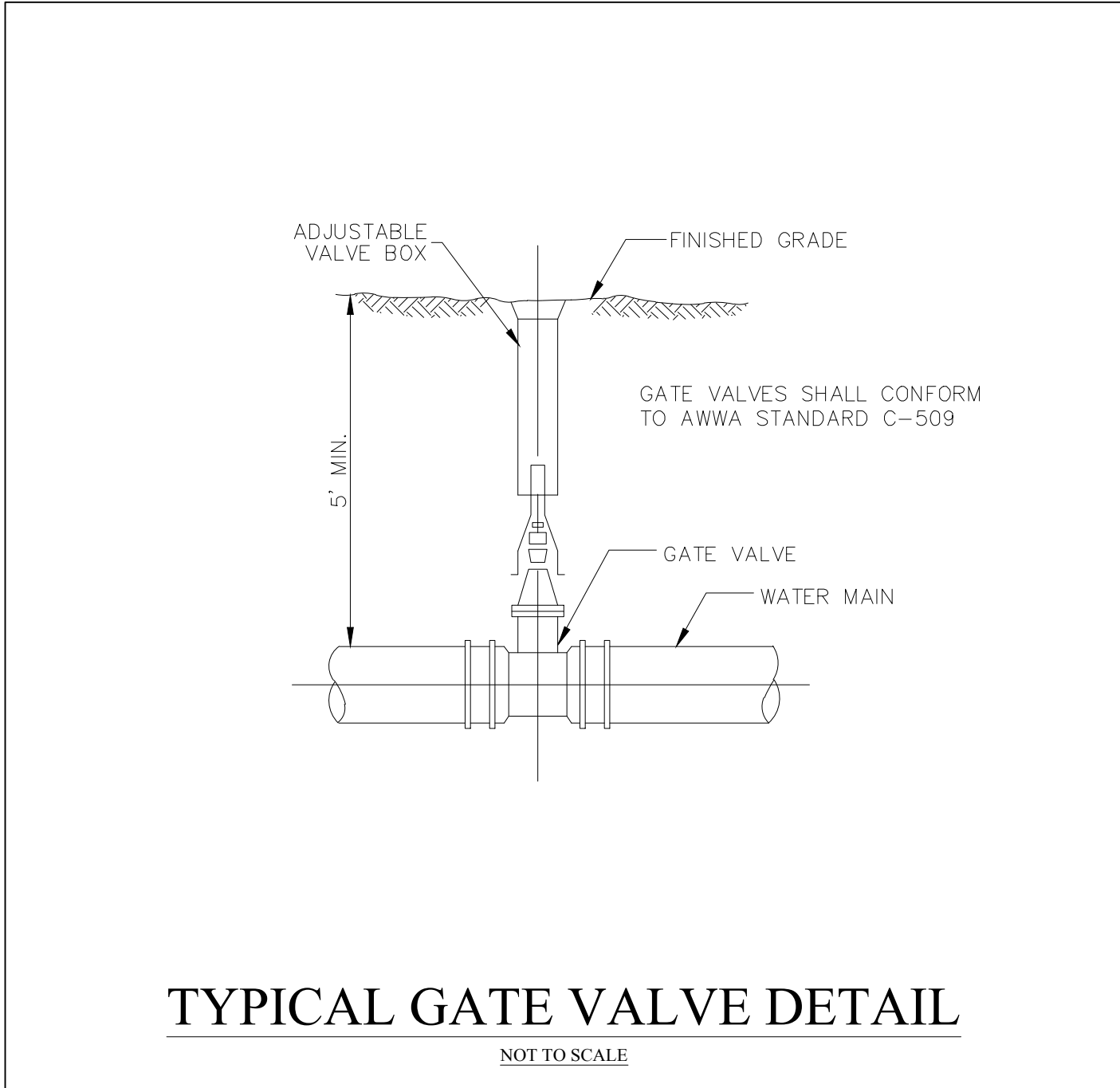
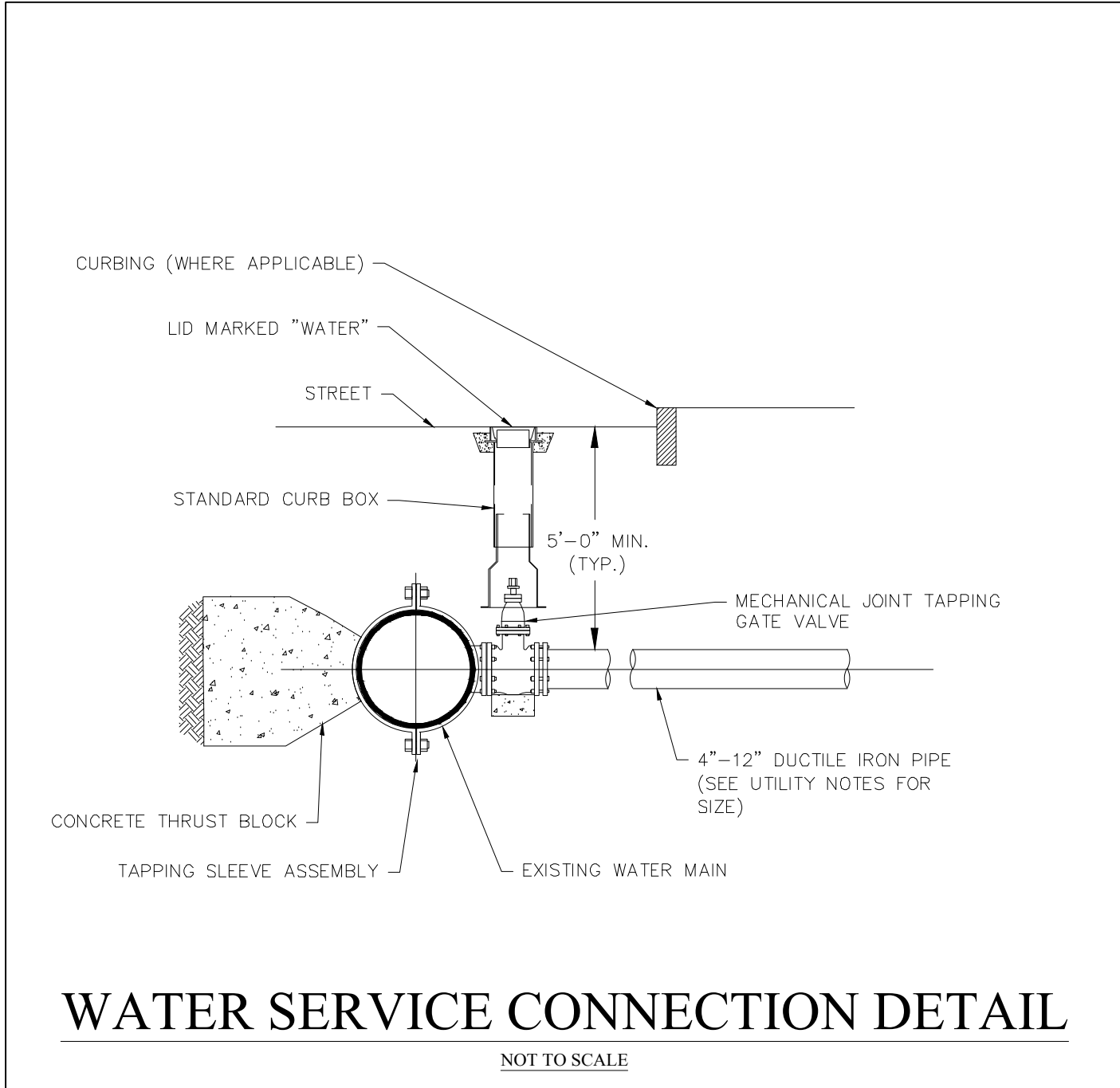
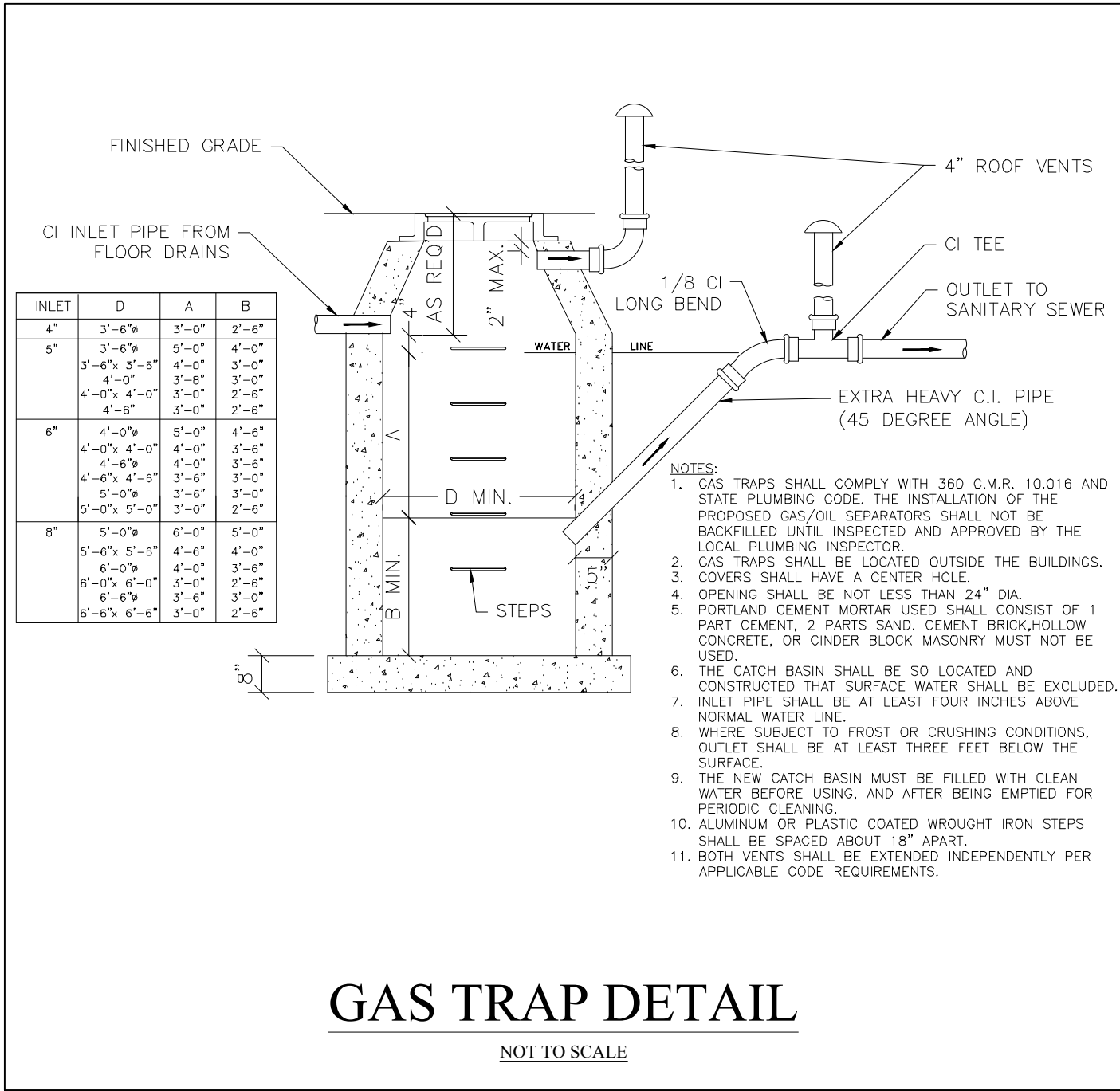
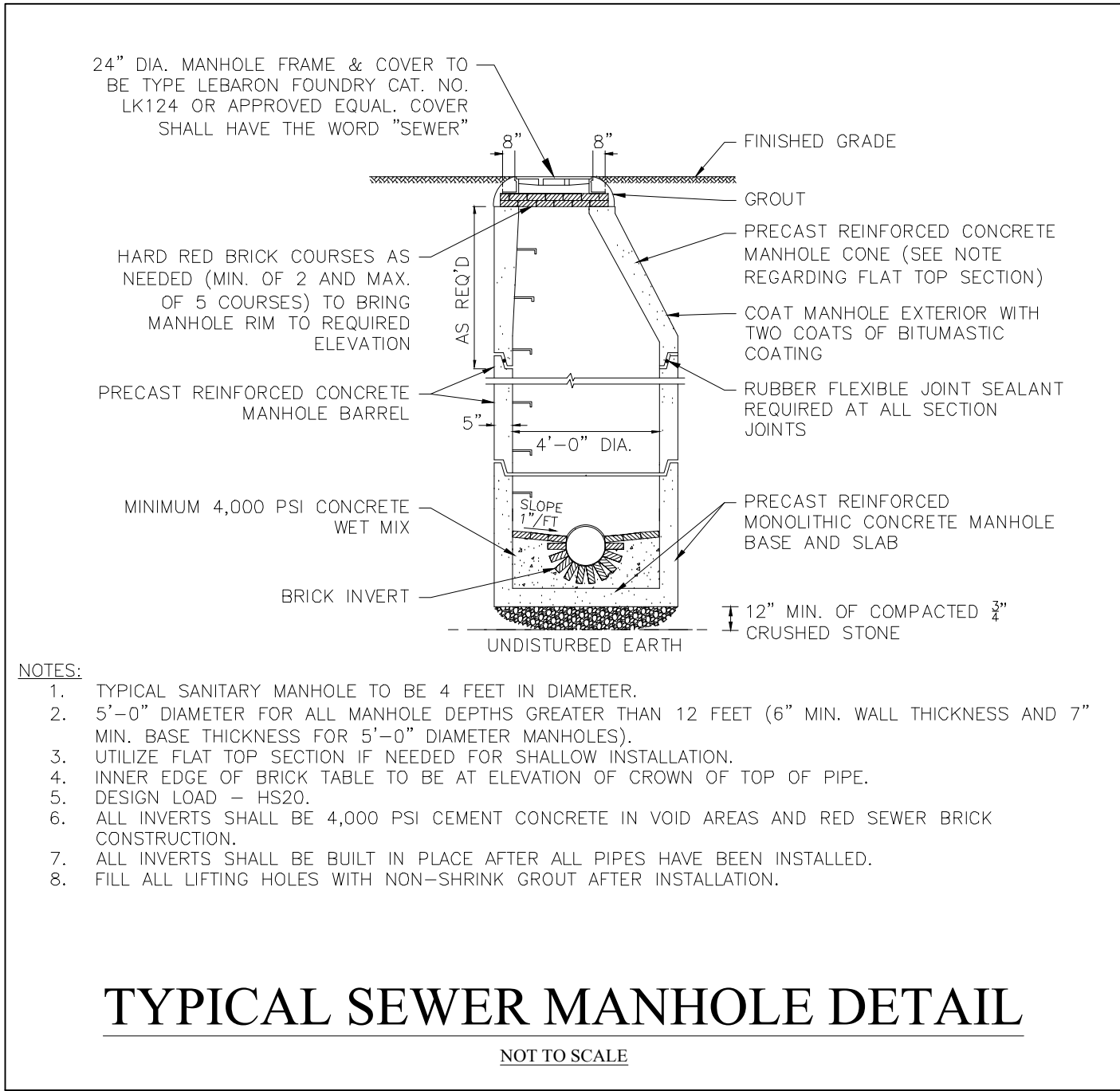
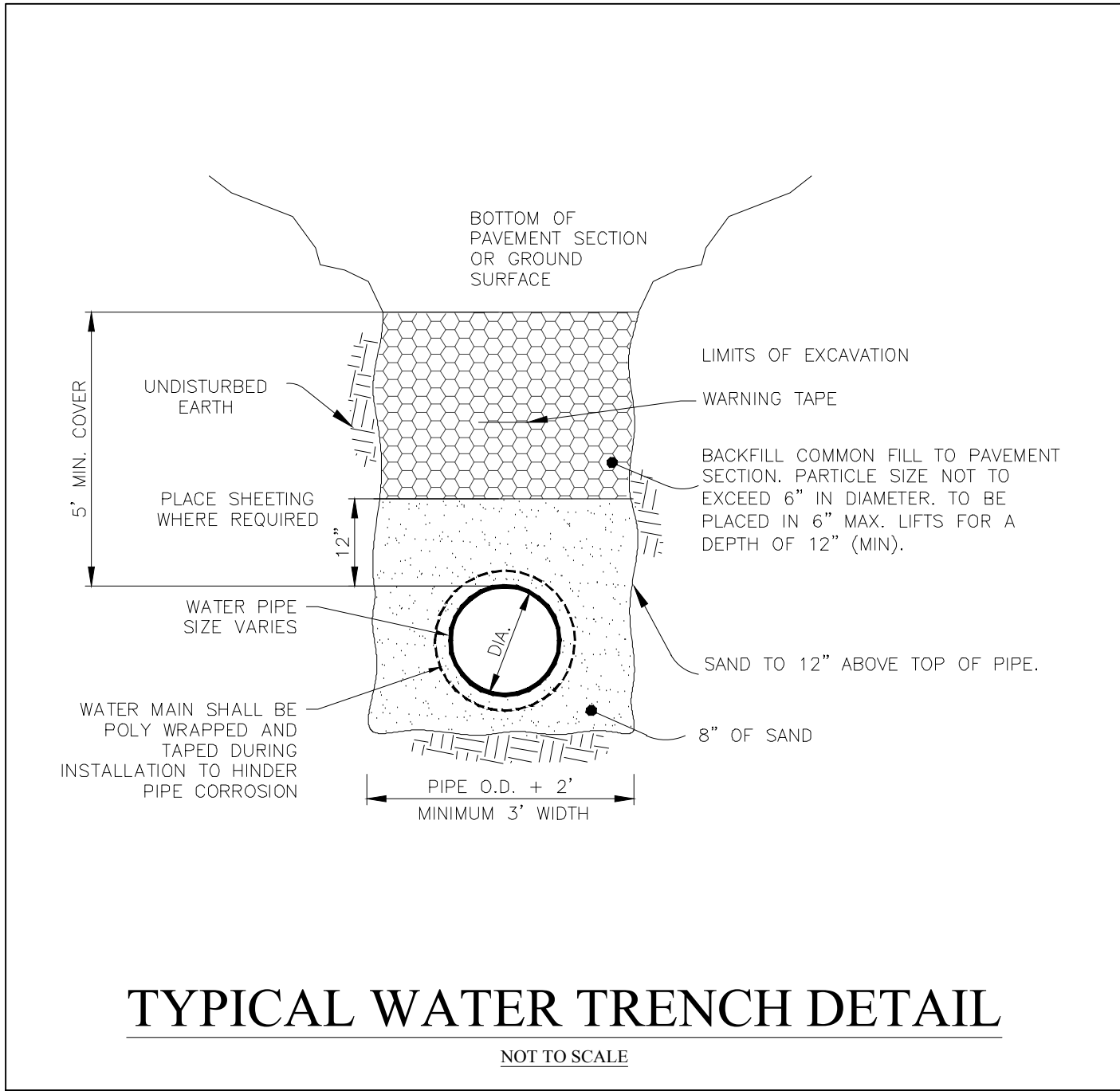
CONSTRUCTION DETAILS

12

DATE: 04/13/2026



PERMIT SET - NOT FOR CONSTRUCTION		
CDG PROJECT #:		25015
REVISIONS:		
REV	DATE	COMMENT
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
PLANNING BOARD:		
SEAL:		
  MATTHEW A. LEIDNER, P.E.		
PREPARED BY:		
CIVIL DESIGN GROUP, LLC 4 HIGH STREET, SUITE 155 NORTH ANDOVER, MA 01845 www.cdengineering.com p: 978-794-5400 f: 978-965-3971		
PREPARED FOR:		
 1900 WEST PARK DRIVE SUITE 180 WESTBOROUGH, MA 01581 www.pulte.com		
PROJECT:		
LEWIS RIDGE		
28 HAVERHILL ROAD (ROUTE 110) AMESBURY, MA		
SCALE:		
AS-NOTED		
SHEET:		
CONSTRUCTION DETAILS		
13		
DATE:		04/13/2026



PERMIT SET -
NOT FOR CONSTRUCTION

CDG PROJECT #:25015

REVISIONS:

REV	DATE	COMMENT
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

PLANNING BOARD:

SEAL:

COMMONWEALTH OF MASSACHUSETTS
MATTHEW A. LEIDNER
CIVIL
No. 45641
REGISTERED PROFESSIONAL ENGINEER

Matthew A. Leidner
MATTHEW A. LEIDNER, P.E.

PREPARED BY:

CIVIL DESIGN
GROUP, LLC

4 HIGH STREET, SUITE 155
NORTH ANDOVER, MA 01845
www.cdgengineering.com
p: 978-794-5400 f: 978-965-3971

PREPARED FOR:

Pulte
HOMES

1900 WEST PARK DRIVE
SUITE 180
WESTBOROUGH, MA 01581
www.pulte.com

PROJECT:

LEWIS RIDGE

28 HAVERHILL ROAD (ROUTE 110)
AMESBURY, MA

SCALE:

AS-NOTED

SHEET:

CONSTRUCTION
DETAILS

14

DATE:

04/13/2026

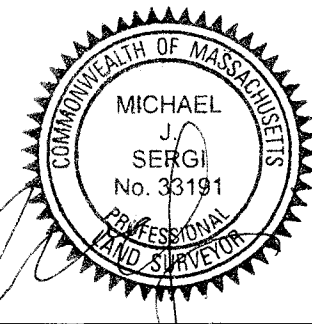
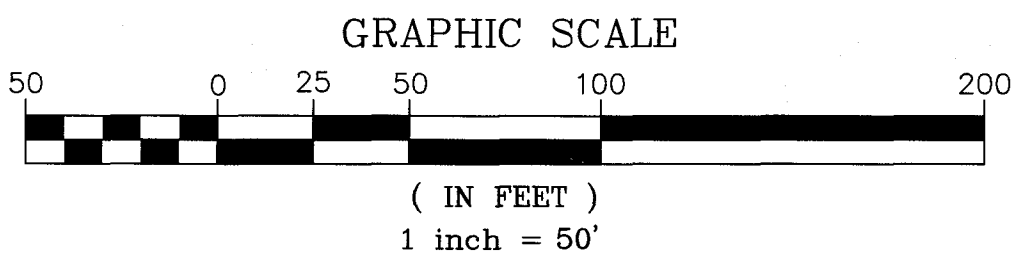
VANASSE HANGEN BRUSTLIN, INC.
120 FRONT STREET SUITE 500
WORCESTER, MA. 001608-1420
(508) 752-1001
(DELINEATED ON: AUGUST 2025)

PLAN REFERENCES
PLAN BK. 435 PLAN 49 E.C.S.R.D.

FLOOD MAP NOTE
ACCORDING TO FEMA FLOOD PLANE MAP 25009C01104G WITH
AN EFFECTIVE DATE OF 7/8/2025 A PORTION OF THE
PROPERTY LAYS WITH IN ZONE A

LEGEND

- C.B. CONCRETE BOUND
- S.B. STONE BOUND
- D.H. DRILL HOLE
- PK MASONRY NAIL
- I.P. IRON PIPE
- I ROD IRON ROD
- FND. FOUND
- N/FND. NOT FOUND
- ASSESSORS MAP
- ASSESSORS PARCEL



PULTE HOMES OF NEW ENGLAND,LLC
28 HAVERHILL ROAD AMESBURY, MA

1 4/2/2026

UPDATE WETLAND FLAGS



MILLENNIUM ENGINEERING, INC.
ENGINEERING AND LAND SURVEYING
62 ELM ST. SALISBURY, MA 01952 (978) 463-8980
13 HAMPTON RD. EXETER, NH 03833 (603) 778-0528

SCALE: 1"=50'

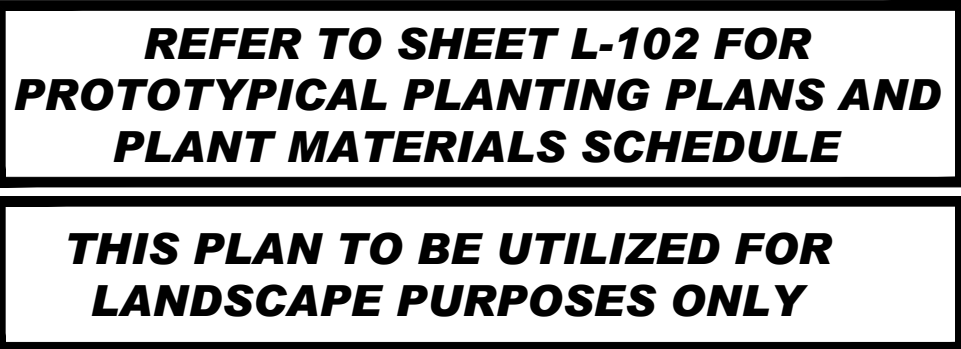
DATE: APRIL. 02, 2026

CALC. BY: M.J.S.

CHKD. BY: J.T.M.

PROJECT: M254527

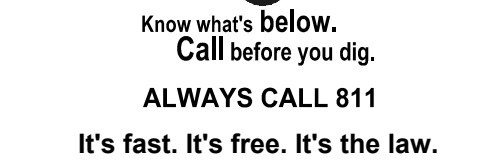
PLAN OF LAND
SHOWING
AN ABBREVIATED NOTICE OF
RESOURCE AREA DELINEATED
AT
28 HAVERHILL ROAD
AMESBURY, MA.



BOHLER

SITE CIVIL AND CONSULTING ENGINEERING

- LAND SURVEYING
- PROGRAM MANAGEMENT
- LANDSCAPE ARCHITECTURE
- SUSTAINABLE DESIGN
- PERMITTING SERVICES
- TRANSPORTATION SERVICES

[illegible]

**FOR CONCEPT
PURPOSES ONLY**

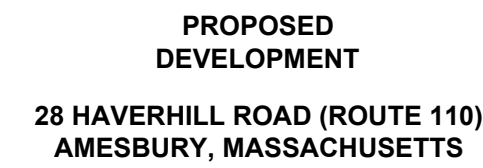
THIS DRAWING IS NOT INTENDED AS A CONSTRUCTION DOCUMENT
UNLESS INDICATED OTHERWISE.

PROJECT No.: MAA260078
DRAWN BY: LC/SW/C
CHECKED BY: SW/I
DATE: 04/09/20
CAD I.D.: P-CIVL-LS

PROJECT:

***PROPOSED
SITE PLAN
DOCUMENTS***

_____ FOR _____



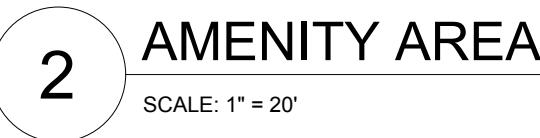
**50 WASHINGTON ST., SUITE 2000
WESTBOROUGH, MA 01581**
Phone: (508) 480-9900

www.BohlerEngineering.com





PLANT SCHEDULE - SCREENING					
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
SHRUBS					
IGC	7	ILEX GLABRA 'COMPACTA'	COMPACT INKBERRY	24-30"	CONTAINER
PSN	5	PINUS STROBUS 'NANA'	DWARF WHITE PINE	18-24"	CONTAINER



5 ENTRY DRIVE (SOUTH EAST SIDE)
SCALE: 1" = 20'

3 BUFFER PLANTING AND MAIN ENTRY DRIVE

SCALE: 1" = 20'

REVISIONS

[illegible]

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PROJECT No.:	MAA260078
DRAWN BY:	LC/SW/C
CHECKED BY:	SW/I
DATE:	04/09/20
CAD I.D.:	P-CIVL-LS

PROJECT:

**PROPOSED
SITE PLAN
DOCUMENTS**

— FOR



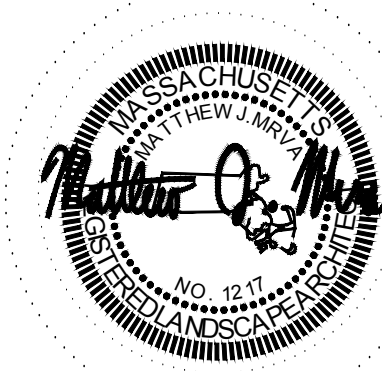
**PROPOSED
DEVELOPMENT**

28 HAVERHILL ROAD (ROUTE 110)
AMESBURY, MASSACHUSETTS

BOHLER

**50 WASHINGTON ST., SUITE 2000
WESTBOROUGH, MA 01581**
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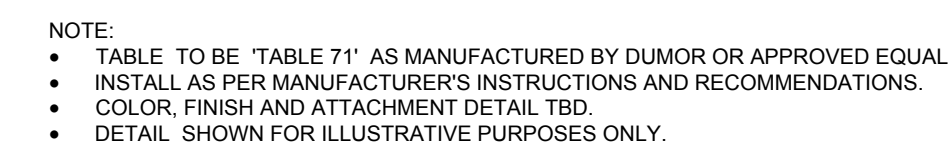
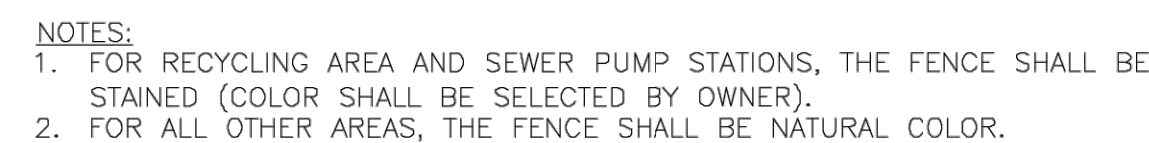
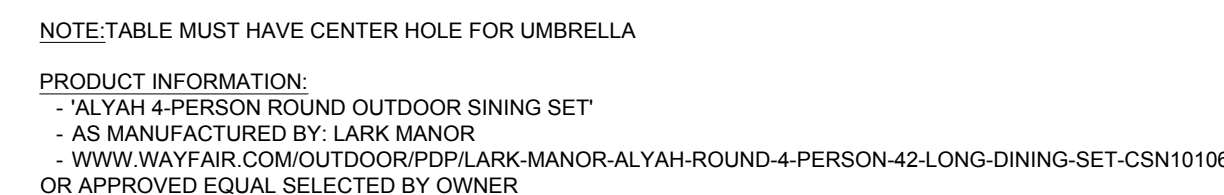
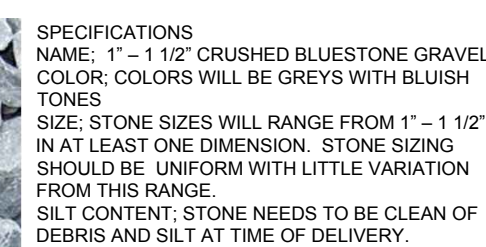
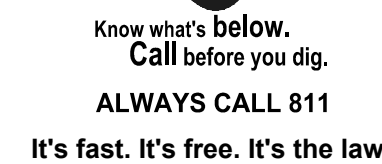
SHEET TITLE:

LANDSCAPE PLAN ENLARGEMENTS

SHEET NUMBER:

L-102

ORG. DATE - 04/09/2026

[illegible]

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PROJECT No.:	MAA260078.0
DRAWN BY:	LC/SW/OC
CHECKED BY:	SW/BO
DATE:	04/09/2021
CAD I.D.:	P-CIVL-LSC

PROJECT:

**PROPOSED
SITE PLAN
DOCUMENTS**



PROPOSED DEVELOPMENT

28 HAVERHILL ROAD (ROUTE 110
AMESBURY, MASSACHUSETTS

BOHLERTM

**50 WASHINGTON ST., SUITE 2000
WESTBOROUGH, MA 01581**
Phone: (508) 480-9900

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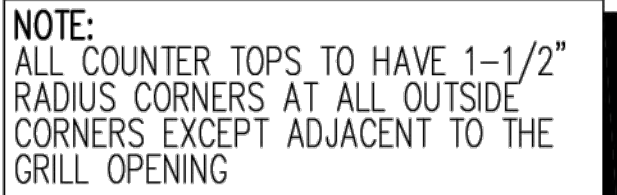


SHEET TITLE:

LANDSCAPE DETAILS I

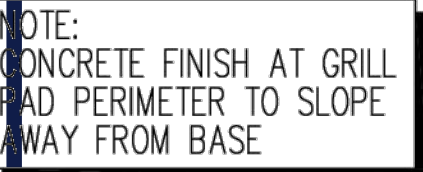
L-103

ORG. DATE - 04/09/2026

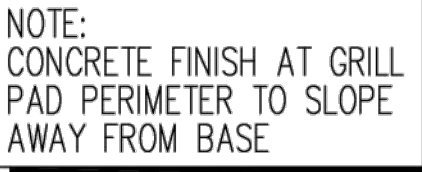


SCALE: $3/4" = 1'-0"$

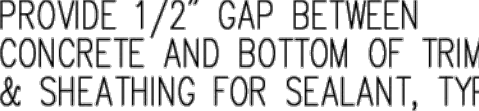
TYP. EXTERIOR WALL CONSTRUCTION:
HARDIE HORIZ. SIDING (INSTALL PER MFR. RECOMMENDATIONS) OR
HARDIE SMOOTH PANEL BD. OVER OSB WOOD SHEATHING
OVER P.T. 2x4 WOOD STUDS @ 16" O.C.



SCALE: $3/4" = 1'-0"$



SCALE: $3/4" = 1'-0"$



SCALE: 3/4" = 1'-0" SCALE: 3/4" = 1'-0"



SCALE: $3/4" = 1'-0"$



SCALE: $3/4" = 1'-0"$



SCALE: $3/4" = 1'-0"$

[illegible]

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PROJECT No.: MAA260078
DRAWN BY: LC/SW/C
CHECKED BY: SW/I
DATE: 04/09/20
CAD I.D.: P-CIVL-LS

PROJECT:

**PROPOSED
SITE PLAN
DOCUMENTS**

_____ FOR _____



**PROPOSED
DEVELOPMENT**

**28 HAVERHILL ROAD (ROUTE 110)
AMESBURY, MASSACHUSETTS**

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WESTBOROUGH, MA 01581**
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SHEET TITLE:

LANDSCAPE DETAILS II

SHEET NUMBER:

L-104

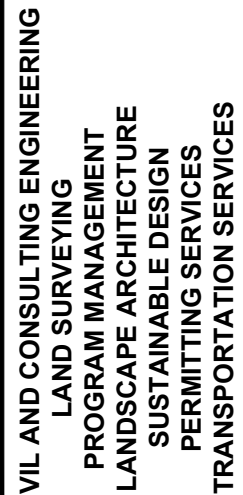
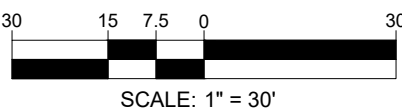
ORG. DATE - 04/09/2026



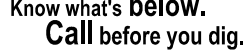
1. THE GENERAL NOTES, FOUND ON THE NOTES PAGE OF THIS PLAN SET, MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE ELECTRICAL CONTRACTOR MUST BECOME FAMILIAR WITH, REFER TO AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THIS LIGHTING PLAN, INCLUDING BUT NOT LIMITED TO GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL APPLICABLE AGENCY AND GOVERNMENTAL REGULATIONS. THE LIGHTING PLAN DEPICTS PROPOSED, SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S); ACTUAL, SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY DIFFER FROM THE VALUES DEPICTED ON THIS PLAN DUE TO VARIATIONS IN WEATHER, ELEVATION, SURFACE REFLECTANCE, LIGHT SOURCE TYPE, LOCATION, AND/OR LUMINAIRES, EXISTING AMBIENT LIGHT SOURCE ON AND OFF SITE, AND OTHER RELATED VARIABLE FIELD CONDITIONS.
3. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED. ILLUMINATION LEVELS ARE SHOWN IN FOOTCANDLES (FC).
4. THE LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, POWER SYSTEM, CONDUITS, WIRING, CONTROL, AND OTHER ELECTRICAL SYSTEMS, MAINTAINED SOLELY BY THE ARCHITECT, ELECTRICIAN, AND/OR ELECTRICAL CONTRACTOR'S RESPONSIBILITY, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THE CONTRACTOR MUST COORDINATE WITH THE PROJECT ARCHITECT AND/OR ELECTRICAL ENGINEER REGARDING ANY AND ALL POWER SOURCES AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY FEDERAL, STATE AND LOCAL REGULATION. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
5. THE ELECTRICAL CONTRACTOR MUST BRING IMMEDIATELY, IN WRITING, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURE(S) TO THE PROFESSIONAL OF RECORD'S ATTENTION, PRIOR TO THE START OF CONSTRUCTION.
6. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL LIGHTING IS INSTALLED PER THIS LIGHTING PLAN, INCLUDING LIGHT LOCATION, LIGHTING FIXTURE, AND/OR ROTATED LIGHTING FIXTURES IN ORDER TO ACHIEVE THE LIGHTING LEVELS DEPICTED ON THIS PLAN. EXISTING POLES AND FOUNDATIONS ARE NOT TO BE REUSED.
7. UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. LUMINAIRES, LAMPS AND LENSES MUST BE REPLACED AS NECESSARY. THE CONTRACTOR, OWNER, OR OTHER MAINTENANCE PERSONNEL SHALL BE RESPONSIBLE FOR REPLACING THE LUMINAIRES, LAMPS AND LENSES, AS OTHER MAINTENANCE PERSONNEL SPECIFIED BY THE MANUFACTURER. FAILURE TO FOLLOW THE ABOVE STEPS RESULT IN IMPROPER LIGHT DISTRIBUTION AND FAILURE TO COMPLY WITH THE APPROVED DESIGN.
8. THE LIGHT LOSS FACTORS (LLF) DEPICTED IN THE LUMINAIRE SCHEDULE ON THIS PLAN ARE BASED ON DATA PROVIDED BY THE MANUFACTURER FOLLOWING IES LM-80-21 TESTING (OR MOST RECENT EDITION). THE LIGHT LEVELS DEPICTED ON THIS PLAN ARE CALCULATED BASED ON THE LUMINAIRE SCHEDULE AND LIGHTING PLAN.
9. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO BOHLER FOR REVIEW AND APPROVAL. SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY A HORIZONTAL PHOTOMETRIC STUDY DEMONSTRATING THAT THE LUMINAIRE(S) IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN. SUBSTITUTION REQUESTS WITHOUT A PHOTOMETRIC STUDY WILL BE REJECTED.
10. LIGHTING CONDITIONS ARE SHOWN ON THE PLAN IN THE INTENDED LOCATION BASED ON THE LIGHTING CALCULATIONS, UNLESS OTHERWISE NOTED. LIGHT SYMBOLS ARE SHOWN RATHER THAN ACTUAL SIZE, HOWEVER FOUNDATION SIZE IS SHOWN AT ACTUAL SIZE.

[illegible]

**THIS PLAN TO BE UTILIZED FOR
LIGHTING PURPOSES ONLY**



REVISIONS

[illegible]

ALWAYS CALL 811
It's fast. It's free. It's the law.

**FOR CONCEPT
PURPOSES ONLY**

THIS DRAWING IS NOT INTENDED AS A CONSTRUCTION DOCUMENT
UNLESS INDICATED OTHERWISE.

PROJECT No.:	MAA260078.00
DRAWN BY:	LC/SW/OG
CHECKED BY:	SW/BC
DATE:	04/09/2026
CAD I.D.:	P-CIVL-LGHT

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR



**28 HAVERHILL ROAD (ROUTE 110)
AMESBURY, MASSACHUSETTS**

BOHLER 

**50 WASHINGTON ST., SUITE 2000
WESTBOROUGH, MA 01581**
Phone: (508) 480-9900

www.BohlerEngineering.com



SHEET TITLE:

LIGHTING PLAN

SHEET NUMBER:

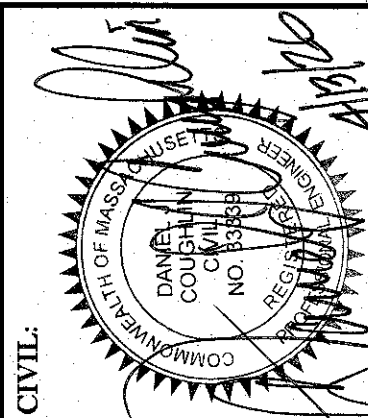
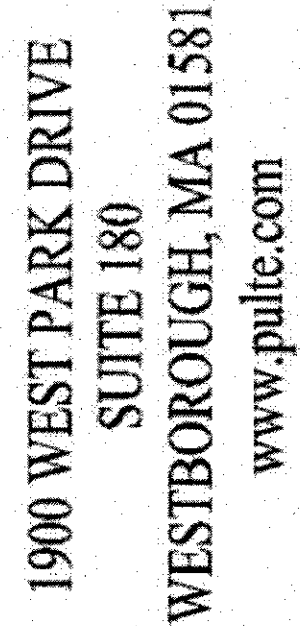
L-201

ORG. DATE - 04/09/2026

A.C.	ASBESTOS CONCRETE
ALUM.	ALUMINUM
BWV	BORDERING VEGETATED WETLAND
C.B.	CATCH BASIN
C.B.C.I.	CATCH BASIN CURB INLET
C.I.	CAST IRON PIPE
C.I.C.L.	CAST IRON PIPE, CEMENT LINED
CL	CENTERLINE
C.L.D.I./D.I.C.L.	CEMENT LINED DUCTILE IRON/ DUCTILE IRON CEMENT LINED
C.M.P.	CORRUGATED METAL PIPE
CONC.	CONCRETE
D	DIAMETER
D.I.	DUCTILE IRON
DIAM.	DIAMETER
D.M.E.	DRAINAGE MANHOLE
D.W.C.H.D.P.E.	DOUBLE WALL CORRUGATED HIGH DENSITY POLYETHYLENE
E.P.	EDGE OF PAVEMENT
E.W.	EACH WAY
EXIST.	EXISTING
F.M.	FORCE MAIN
G.G.	GAS GATE
G.V.	GATE VALVE
GPM	GALLONS PER MINUTE
HDPE	HIGH DENSITY POLYETHYLENE
H.H.	HANDHOLE
I.	HYDRANT
I=	INVERT ELEVATION
LBS.	POUNDS
LF	LINEAL FEET
LPS	LOW PRESSURE SEWER
M.B.	MAILBOX
MAX.	MAXIMUM
MIN.	MINIMUM
NPT	NATIONAL PIPE THREAD
N.T.S.	NOT TO SCALE
O.U.	ON CENTER
PC200	200 PSI CLASS PIPE
P	PROPERTY LINE
PROP.	PROPOSED
P.S.	PRESSURE SEWER
P.S.I.	POUNDS PER SQUARE INCH
P.V.C.	POLYVINYL CHLORIDE
R=	RIM ELEVATION
R.C.P.	REINFORCE CONCRETE PIPE
R.O.W.	RIGHT OF WAY
REQ.	REQUIRED
S	STREET LINE
S.B.	STONE BOUND
S.S.	STAINLESS STEEL
STL	STEEL
T.B.D.	TO BE DETERMINED
T.D.H.	TOTAL DYNAMIC HEAD
T.M.H.	TELEPHONE MANHOLE
T.M.&V.	TAPPING SLEEVE AND VALVE
T.W.	TEMPORARY WATER MAIN
TYP.	TYPICAL
U.L.P.	UTILITY LIGHT POLE
U.P.	UTILITY POLE
V.C.	VITRIFIED CLAY PIPE
W/	WITH
W.G.	WATER GATE
W.M./M.P.	WATER METER PIT
Ø	DIAMETER

EXISTING	PROPOSED	DESCRIPTION
		PROPERTY LINE
	SINGLE GRATE	CATCH BASIN
	DOUBLE GRATE	DRAIN MANHOLE
		SEWER MANHOLE
		DRAIN PIPE
		GAS LINE
		OVERHEAD WIRES
		UNDERGROUND WIRES
		SEWER LINE
		WATER LINE
		FORCE MAIN
		FOUNDATION DRAIN
		ROOF DRAIN
		MINOR CONTOUR
		INDEX CONTOUR
		GUIDERAIL
		STONE WALL/LANDSCAPE WALL
		PERIMETER EROSION CONTROL BARRIER (SEE DETAILS)
		SILT FENCE ONLY (TO DELINEATE LIMIT OF WORK WHERE AN EROSION CONTROL FUNCTION IS NOT NEEDED)
		TREELINE
		CRUSHED STONE
		RIPRAP
		HYDRANT
		SIGN
		UTILITY POLE
		FLARED END SECTION
		TEST PIT LOCATION
		TOP/BOTTOM CURB ELEVATION
300.5x		SPOT ELEVATION
		CURB RADIUS

2. THE CONTRACTOR SHALL MEET WITH PROPERTY OWNERS PRIOR TO WORK ON SAID PROPERTY TO DETERMINE THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES.
3. THE CONTRACTOR SHALL BE NOTIFIED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND THE CONTRACTOR SHALL MEET WITH PROPERTY OWNERS PRIOR TO WORK ON SAID PROPERTY TO DETERMINE THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES.
4. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO BIDDING SO AS TO BE COMPLETELY FAMILIAR WITH THE EXISTING CONDITIONS AND THE PROPOSED REQUIREMENTS OF THE WORK.
5. DIG SAFE SHALL BE NOTIFIED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR REQUESTING THAT THE SHREWSBURY WATER DEPARTMENT PROVIDES SYSTEM MARKINGS AND SHALL COORDINATE ALL WATER MAIN CROSSINGS WITH SHREWSBURY WATER DEPARTMENT PERSONNEL. EXTREME CAUTION SHALL BE TAKEN BY THE CONTRACTOR IN THIS AREA WHICH CONTAINS PRIMARY WATER DISTRIBUTION MAINS AND TAKE ALL MEASURES NECESSARY TO SAFEGUARD THE SYSTEM.
6. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL COSTS FOR DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
7. THE CONTRACTOR SHALL NOTIFY ALL PUBLIC AND PRIVATE UTILITIES REQUIRED AND VERIFY THE LOCATION OF ALL EXISTING SUBSURFACE UTILITIES PRIOR TO PERFORMING ANY WORK. OTHE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY DISCREPANCIES BETWEEN CONDITIONS SHOWN ON THE PLANS AND ACTUAL FIELD CONDITIONS.
8. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT
9. ALTHOUGH NOT ANTICIPATED, ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO THE WORK CALLED FOR UNDER THIS CONTRACT. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH FIELD CONDITIONS WITH PRIOR WRITTEN APPROVAL OF THE ENGINEER.
10. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
11. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE PROPOSED SEWER WORK TO MAINTAIN 10' HORIZONTAL SEPARATION FROM WATER PIPING. WHEN HORIZONTAL SEPARATION CAN NOT BE FEASIBLY MAINTAINED DUE TO SITE CONDITIONS, CONSTRUCTION OF THE PROPOSED SEWER LINE TO BE MODIFIED (PIPE SLEEVE, CHANGE DEPTH OR CONCRETE ENCASEMENT) TO SAFE GUARD THE PROPOSED AND EXISTING WATER MAINS.
12. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE ALL TEMPORARY AND PERMANENT SUPPORT AND THRUST RESTRAINT OF COMPONENTS FOR EXISTING AND PROPOSED FACILITIES AND COMPONENTS IMPACTED BY THE CONTRACT. SUPPORT AND RESTRAINTS SHALL BE SIZED, REINFORCED AND POSITIONED SO AS TO SAFEGUARD THE CONDITIONS AND INTEGRITY OF THE PIPING, STRUCTURES, EQUIPMENT AND APPURTENANCES OF THE PROJECT AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER AND THE INSPECTOR. ALL METAL FABRICATIONS AND SUPPORT SYSTEMS SHALL BE STAINLESS STEEL UNLESS OTHERWISE APPROVED IN WRITING.
13. CLAY DAMS TO BE INSTALLED ON PRESSURE SEWER PIPES AND FORCEMAINS AT INTERVALS OF 300 FEET, AT LATERALS ENTERING THE STREET R.O.W OR AS DIRECTED BY THE ENGINEER.
14. CONTRACTOR SHALL REMOVE AND REPLACE OR RESTORE ALL THE LANDSCAPING, PAVEMENT, CURBING AND DRAINAGE FEATURES AS SHOWN ON PLANS OR AS ENCOUNTERED DURING CONSTRUCTION TO THEIR PRECONSTRUCTION CONDITION.
15. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ALL ORDER OF CONDITIONS ESTABLISHED FOR THIS PROJECT.

[illegible]

**LEWIS RIDGE
WASTEWATER PUMP STATION
AND FORCEMAIN
28 HAVERHILL ROAD (ROUTE 110)
AMESBURY, MASSACHUSETTS**

Prepared For

**PULTE HOMES OF NEW ENGLAND, LLC
1900 WEST PARK DRIVE
SUITE 180
WESTBOROUGH, MA 01581
WWW.PULTE.COM**



62 Montvale Avenue Phone: (781) 832-1002
Stoneham, MA 02180-3637 Fax: (781) 438-9654
Email: mail@coughlinenvironmental.com

Q:\Projects\2140-64 Haverhill Road, Amesbury - Eval and PS\CES_CAD_1 LEGEND 4-13-2026.dwg

SCALE: N.T.S

SHEET WW-1 OF WW-5

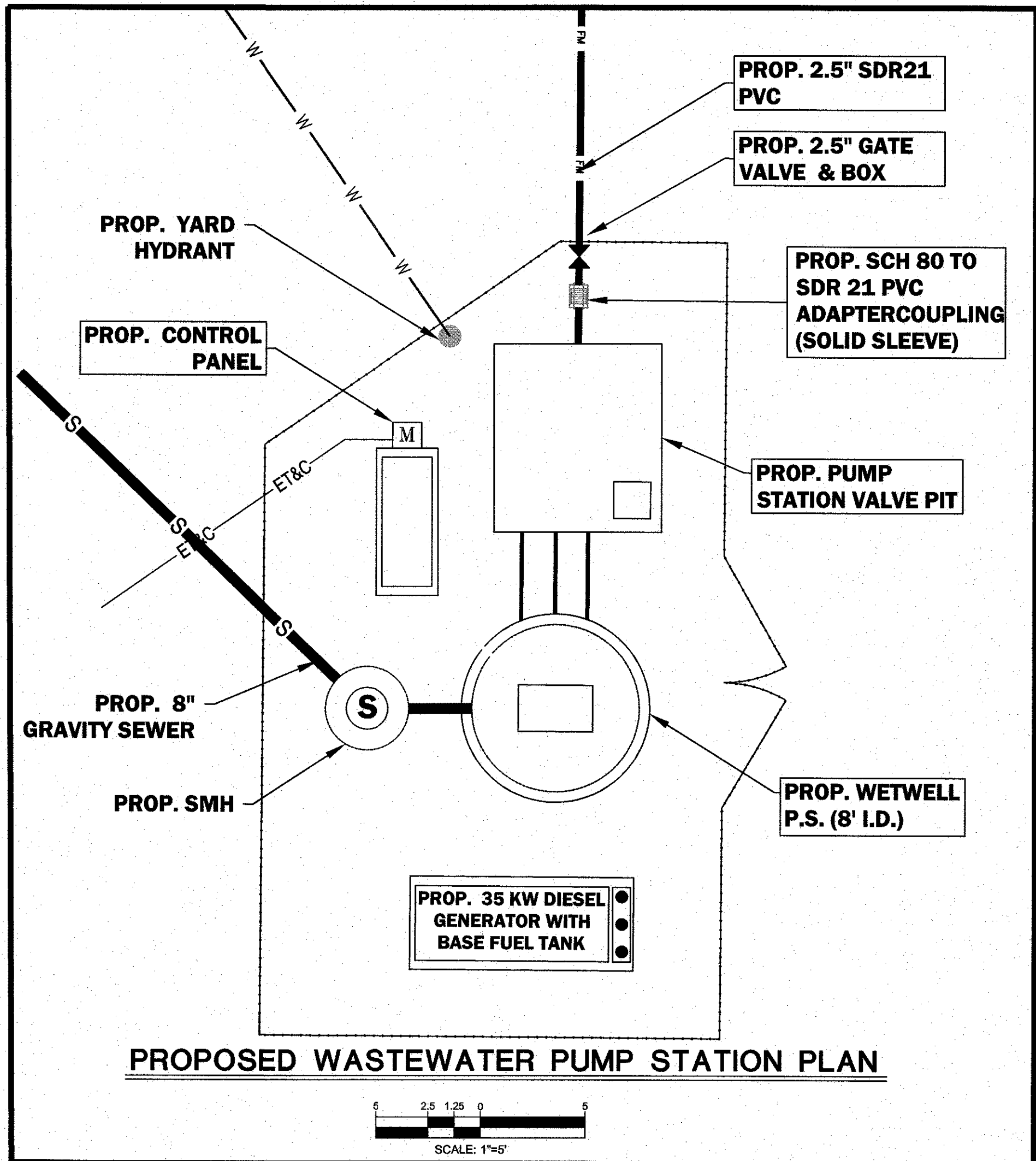
SEWER MANHOLE SCHEDULE					
NAME	RIM	INV. (IN)		INV. (OUT)	
GT-1	94.00	85.00 (4", BLDG 1 Garage, 25 LF, 0.020'')		84.67 (4", SMH-1, 26 LF, 0.020'')	
GT-2	92.10	85.00 (4", BLDG 2 Garage, 25 LF, 0.020'')		84.67 (4", SMH-2, 26 LF, 0.020'')	
P.S.#1	90.60	82.00 (8", SMH-3, 9 LF, 0.011'')			
SMH-1	94.16	83.65 (8", BLDG 1 Sanitary, 46 LF, 0.029'') 84.15 (4", GT-1, 26 LF, 0.020'')		83.55 (8", SMH-2, 166 LF, 0.006'')	
SMH-2	92.42	82.60 (8", SMH-1, 166 LF, 0.006'') 84.15 (4", GT-2, 26 LF, 0.020'') 83.65 (8", BLDG 2 Sanitary, 47 LF, 0.029'')		82.50 (8", SMH-3, 58 LF, 0.005'')	
SMH-3	90.75	82.00 (8", SMH-2, 58 LF, 0.005'')		82.10 (8", P.S.#1, 9 LF, 0.011'')	
SMH-4	101.90	95.06 (2.5" FM, P.S. #1, 353 LF, UPGRADE SLOPE) 95.254 (8", SERVICE RELOCATION) 95.80 (4", VENT, PITCHED TO DRAIN)		94.60 (8", EX-SMH, 20 LF, 0.020'')	
RECONSTRUCTED INVERT					
SMH-A	101.97	94.20 (8", SMH-4, 20LF, 0.020'') 94.10 (8", "A") (WEST) 94.31 (8", "C") (EAST)		94.02 (8", SMH=8, 48 LF, 0.01'')	

GENERAL NOTES

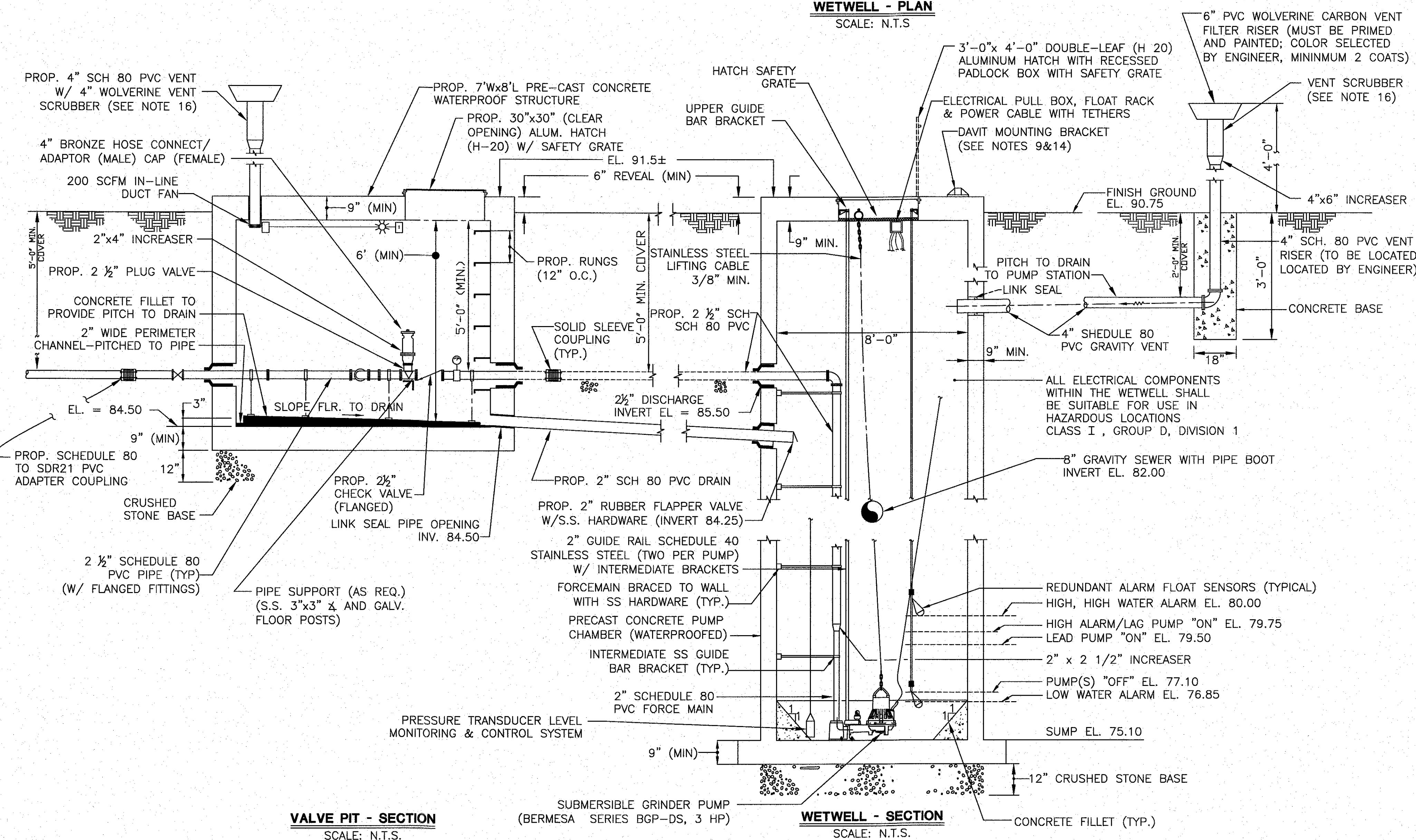
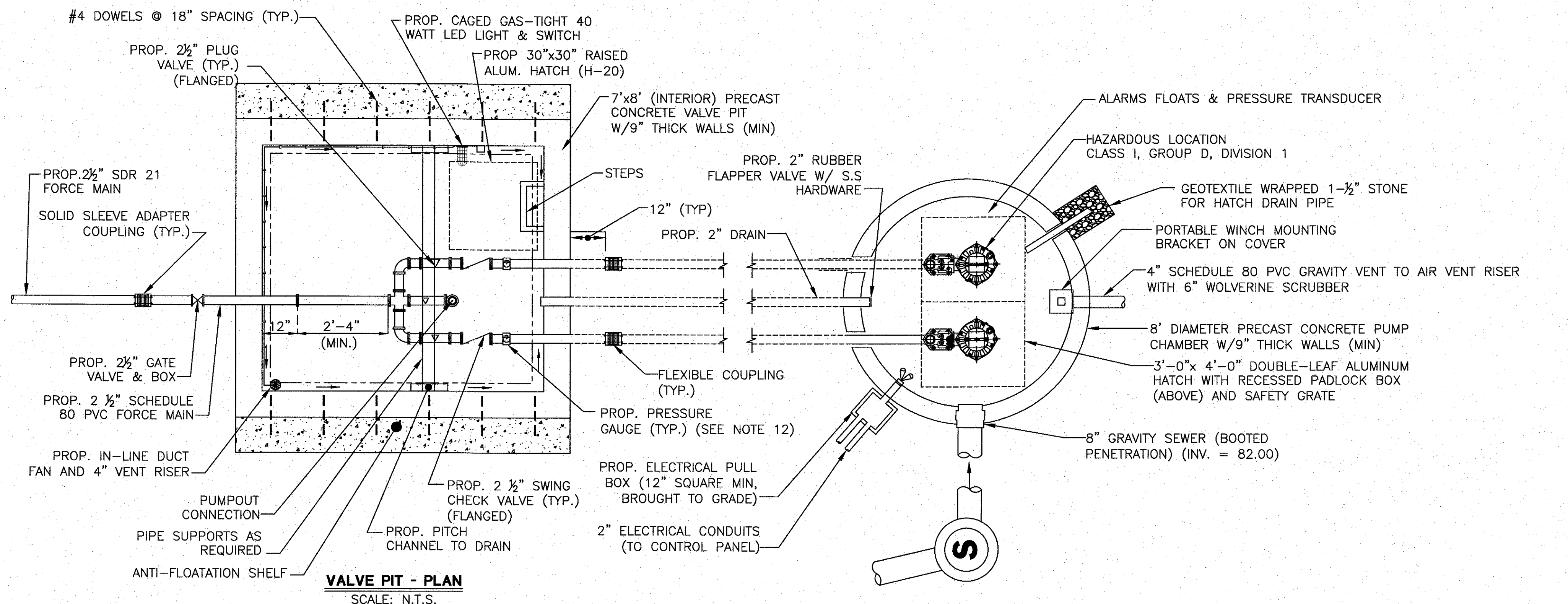
1. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO BIDDING SO AS TO BE COMPLETELY FAMILIAR WITH THE EXISTING CONDITIONS AND THE PROPOSED REQUIREMENTS OF THE WORK.
2. THE LOCATION OF UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY, AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER, ITS REPRESENTATIVE OR DIG SAFE. UTILITIES SHOWN ARE BASED ON INFORMATION PROVIDED BY CIVIL DESIGN GROUP INCLUDING THE GRAVITY SEWER LINES AND FORCE MAIN LOCATION. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING AND PROPOSED UTILITIES BY MEAN OF CONTACTING DIG SAFE AND BY EXCAVATION (HAND DIGGING AROUND UTILITIES) BEFORE COMMENCING THE PROPOSED WORK. THE CONTRACTOR SHALL AGREE TO BE FULLY RESPONSIBLE FOR PRESERVING THE INTEGRITY OF ALL UTILITIES SHOWN OR NOT SHOWN, AND SHALL BE FULLY RESPONSIBLE FOR ANY DAMAGE TO THESE UTILITIES WHICH MAY RESULT THROUGH THE CONTRACTORS WORK.
3. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE ALL TEMPORARY AND PERMANENT SUPPORT AND THRUST RESTRAINT OF COMPONENTS FOR EXISTING AND PROPOSED FACILITIES AND COMPONENTS IMPACTED BY THE CONTRACT. SUPPORT AND RESTRAINTS SHALL BE SIZED REINFORCED AND POSITIONED SO AS TO SAFEGUARD THE CONDITIONS AND INTEGRITY OF THE PIPING, STRUCTURES, EQUIPMENT AND APPURTENANCES OF THE PROJECT AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER AND THE INSPECTOR.
4. THE EXISTING SEWER MANHOLE "A" (SMH-A) SHALL BE MODIFIED TO PROVIDE ENTRANCE OF THE PROPOSED 8" GRAVITY SEWER WITH BRICK INVERT FULLY REBUILT. THE EXISTING PIPE IN THAT LOCATION SHALL BE REROOTED OR ABANDONED PER CITY DIRECTION.
5. THE CONTRACTOR SHALL RESTORE THE ENTIRE SITE AREA AS SHOWN ON THIS PLAN SET INCLUDING SOIL, LOAM AND SEED, DRAINAGE SYSTEMS, CONTOURS, BITUMINOUS CONCRETE, FENCES, CURBS, PLANTINGS, ETC.
6. REFER TO SITE CIVIL AND LANDSCAPING SHEETS FOR FENCING AND LANDSCAPING APPURTENANCES.
7. METALLIC TRACER TAPE SHALL BE INSTALLED 2 FEET BELOW THE SURFACE OVER ALL PVC SEWER PIPING, PVC FORCEMAIN OR PLASTIC GAS SERVICE.

LEGEND

- | | |
|--|---|
| EXISTING GRADE CONTOUR | — 100 — |
| PROPOSED GRADE CONTOUR | 100 |
| PROPOSED UTILITY LINE (DRAIN) | D |
| PROPOSED GRAVITY SEWER | S |
| PROPOSED FORCE MAIN | FM |
| PROPOSED UNDERGROUND TELEPHONE/ELECTRIC & CABLE CONDUITS | T/E/C |
| PROPOSED EROSION CONTROL BARRIER |  |
| PROPOSED NATURAL GAS MAIN/SERVICE | G |
| PROPOSED GATE VALVE |  |
| PROPOSED POLE LIGHT |  |
| SPOT ELEVATION | 120x50 |
| EDGE OF WETLANDS AS DETERMINED BY (WITH FLAGS) |  |
| FENCE |  |
| RIP RAP /STONE/GRAVEL |  |
| EOP | EDGE OF PAVEMENT |
| MIN. | MINIMUM |
| TYP. | TYPICAL |



 Pulte HOMES		1900 WEST PARK DRIVE SUITE 180 WESTBOROUGH, MA 01581 www.pulte.com	



- THE CONTRACTOR SHALL PERFORM ALL ELECTRICAL WORK IN STRICT COMPLIANCE WITH STATE AND LOCAL BUILDING ELECTRICAL CODES AND THE MASS ELECTRICAL CODE (LATEST REVISION).
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING THE ELECTRICAL/ NATURAL GAS SERVICE FROM THE LOCAL UTILITY COMPANIES. AS PART OF THE WORK, THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES NECESSARY FOR INSTALLATION OF THE ELECTRICAL SERVICE. GAS SERVICE SHALL BE SIZED FOR FULL LOAD AT MIN. PRESSURES STIPULATED BY GENERATOR MANUFACTURER.
3. THE METER SOCKET SHALL BE OF THE SIZE, TYPE AND RATING ACCEPTABLE THE LOCAL POWER UTILITY COMPANY.
4. THE STAND-BY POWER GENERATOR. THE GENERATOR SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS. THE GENERATOR CONFORMANCE WITH THE MANUFACTURERS RECOMMENDATIONS, A ONE YEAR SERVICE CONTRACT SHALL BE OBTAINED AT THE CONTRACTOR'S EXPENSE FOR MAINTENANCE OF THE GENERATOR FROM A MANUFACTURER CERTIFIED SERVICE FIRM AND SHALL INCLUDE A MINIMUM OF TWO MAINTENANCE VISITS INCLUDING AN ENGINE TUNE-UP, EMERGENCY ON-CALL SERVICE SHALL ALSO BE PROVIDED. THE GENERATOR SHALL HAVE THE FOLLOWING FEATURES:
 - A. NATURAL GAS FUEL SUPPLY.
 - B. 35 KVA RATING.
 - C. 480/277 VOLT, 3 PHASE, 60 HZ.
 - D. 100 AMP CIRCUIT BREAKER OVERCURRENT PROTECTION.
 - E. ENGINE JACKET HEATER.
 - F. BATTERY CHARGER.
 - G. BATTERY AND RACK.
 - H. INTEGRAL VIBRATION ISOLATION.
 - I. 100% SOLID STATE MICROPROCESSOR BASED CONTROL CIRCUITRY AND DIGITAL INSTRUMENTATION.
 - J. ALARM MONITORING WITH AUXILIARY ALARM CONTACTS & RELAY FOR REMOTE ANNUNCIATION.
 - K. PROGRAMMABLE EXERCISING PROGRAM.
5. THE STAND-BY POWER GENERATOR SHALL BE ENCLOSED IN A LEVEL 3 WEATHER-PROOF ACOUSTIC ATTENUATING HOUSING AS MANUFACTURED BY CATERPILLAR. THE HOUSING SHALL HAVE THE FOLLOWING FEATURES:

- A. SOUND INSULATING CORROSION RESISTANT ENCLOSURE.
 - B. THE ENCLOSURE FINISH SHALL BE ELECTROSTATICALLY APPLIED WITH POWDER COATED BAKED ENAMEL PAINT. (COLOR SELECTED BY ENGINEER)
 - C. REMOVABLE SLIDE PANELS FOR EASY ACCESS TO GENERATOR. ALL PANELS SHALL BE EQUIPPED WITH A LOCKABLE LATCH TO PREVENT TAMPERING.
 - D. DOWNS AT GENERATOR AND RADIATOR ENDS TO PROVIDE SUFFICIENT AIR COOLING.
 - E. CRITICAL SILENCER AND MOUNTING ACCESSORIES TO COMPLY WITH 67.5 dBA @ 50 FT.
6. THE AUTOMATIC TRANSFER SWITCH SHALL BE AS MANUFACTURED BY CATERPILLAR COMPANY. THE AUTOMATIC TRANSFER SWITCH SHALL HAVE THE FOLLOWING FEATURES:
- A. 35 KW KVA RATING.
 - B. 480/277 VOLT, 3 PHASE, 60 HZ.
 - C. UL LISTED.
 - D. RATED FOR INDUCTIVE AND NON-INDUCTIVE LOADS.
 - E. FACTORY WIRED.
 - F. MECHANICALLY HELD, ELECTRICALLY OPERATED SWITCH WITH DOUBLE-THROW INTERLOCKED CONSTRUCTION.
 - G. NEMA 1 ENCLOSURE WITH FRONT FACE MOUNTED PILOT LIGHTS.
 - H. TIME DELAY THERMISTATICALLY CONTROLLED COOLING & HEATING(1 TO 60 SECONDS)
 - I. MANUAL AND TEST SWITCH.

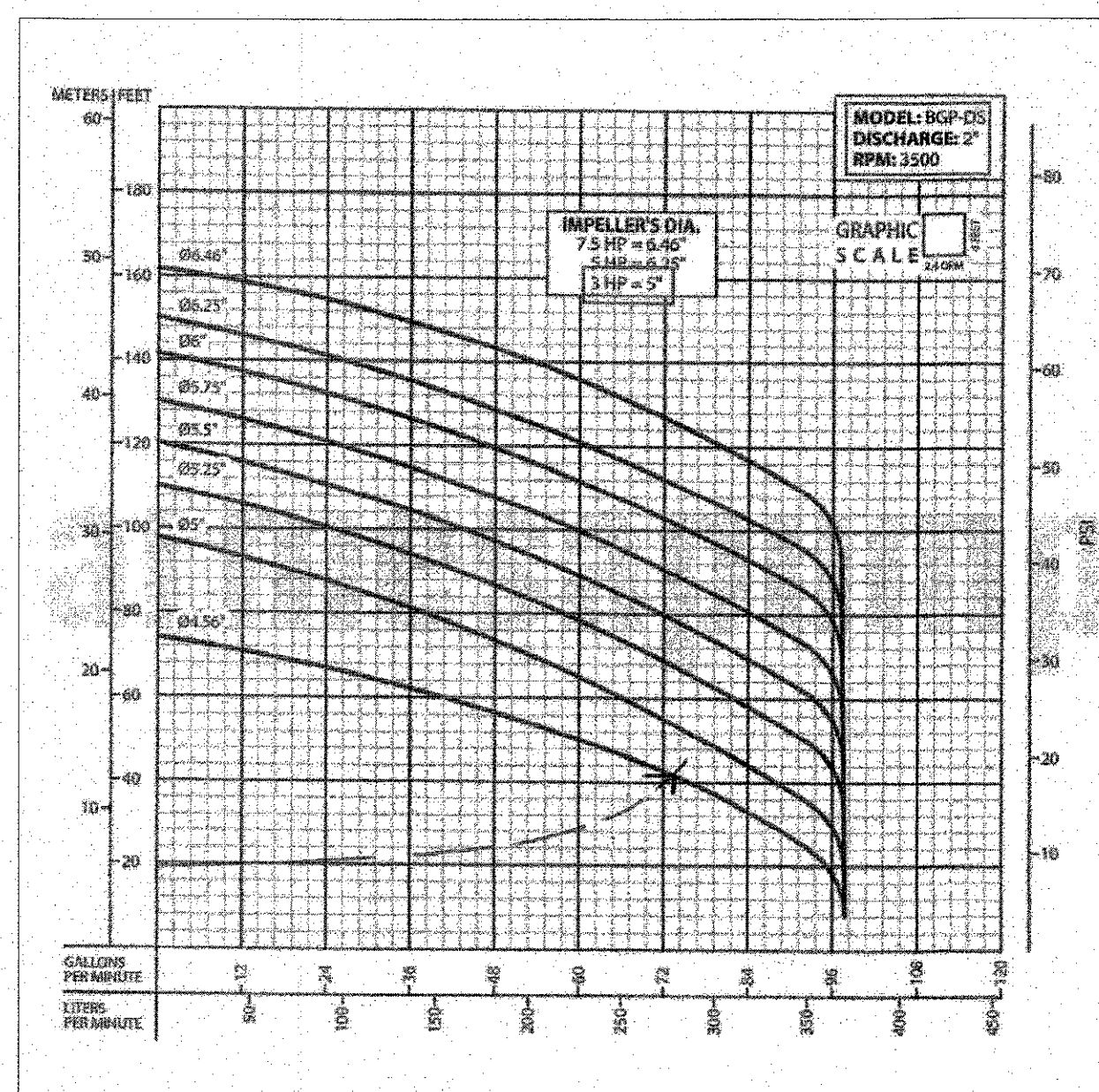
7. THE 480/277V, 3Ø PANEL BOARD AND CIRCUIT BREAKERS SHALL BE SQUARE D OR EQUIVALENT. THE PANEL BOARD SHALL BE RATED FOR 100 AMP, 480/277V, 25 KAIC 3 PHASE, 60 HZ SERVICE. THE PANELBOARD SHALL BE EQUIPPED WITH A MAIN CIRCUIT BREAKER AND COPPER BUSES. CIRCUIT BREAKERS SHALL BE BOLT-ON TYPE WITH 25 KAIC. THE 120/240V, 1Ø PANELBOARD SHALL BE RATED 100 AMPS W/PLUG-IN CIRCUIT BREAKERS RATED 10 KAIC. PANELBOARD ENCLOSURES SHALL BE NEMA 1 RATED.

- B. THE PUMP CONTROL PANEL SHALL BE AS MANUFACTURED BY BARMESA PUMPS OR EQUIVALENT. THE PUMP CONTROL PANEL SHALL HAVE THE FOLLOWING FEATURES:
 - A. CIRCUIT BREAKER FOR EACH PUMP MOTOR FOR SHORT CIRCUIT PROTECTION AND POWER LOCK-OUT.
 - B. A SOLID STATE REDUCED VOLTAGE STARTER WITH OVERLOAD RELAY. THE STARTER SHALL HAVE A 2 MILLISEC FUSE FOR REDUNDANT SHORT CIRCUIT PROTECTION; ADJUSTABLE ACCELERATION/DECELERATION RAMPING TIME (0-20 SECONDS); SUITABLE FOR A NON-VENTILATED ENCLOSURE. THE STARTER SHALL BE SENTROL EM3 AS MANUFACTURED BY PAYNE ENGINEERING, SCOTT DEPOT, WV.
 - C. INTRINSICALLY SAFE FLOAT SWITCHES FOR ALARM SIGNALING.
 - D. LAG PUMP ACTIVATION WITH HIGH WATER.
 - E. EACH PUMP SHALL HAVE A HAND-OFF-AUTOMATIC SELECTOR SWITCH, LEAD / LAG SELECTOR AND PUMP STATUS PILOT LIGHTS MOUNTED ON THE PANEL DOOR FRONT FACE.
 - F. HIGH WATER, LOW WATER, PUMP FAILURE, (OVERTEMP AND SEAL) ALARM PILOT LIGHTS.
 - G. LIGHT COLUMN WHICH IS ALSO WIRED TO EXTERIOR MOUNTED DOMED LIGHT)
 - H. AUTOMATIC PUMP ALTERNATOR.
 - I. RUN TIME METER FOR EACH PUMP.
 - J. HYDROSTATIC LEVEL MONITOR AND CONTROLLER FOR PUMP CONTROL.
 - K. THE CONTROL SYSTEM SHALL ALLOW FOR THE ACTIVATION AND DEACTIVATION OF PUMPS THROUGH THE USE OF THE HYDROSTATIC LEVEL TRANSDUCER AS WELL AS THE REDUNDANT ALARM FLOATS. ALARM NOTIFICATION SHALL ALSO BE ACTIVATED THROUGH THE TRANSDUCER AND REDUNDANT ALARM FLOAT.
 - L. ALLOW FOR DUAL MODE OPERATION AND PUMP SHUT DOWN.
 - M. DUPLEX CONVENIENCE RECEPTACLES, CABINET LIGHTING UPON DOOR OPENING, A TOP MOUNT ALARM LIGHT/BACON, AND A HORN WITH SILENCER.

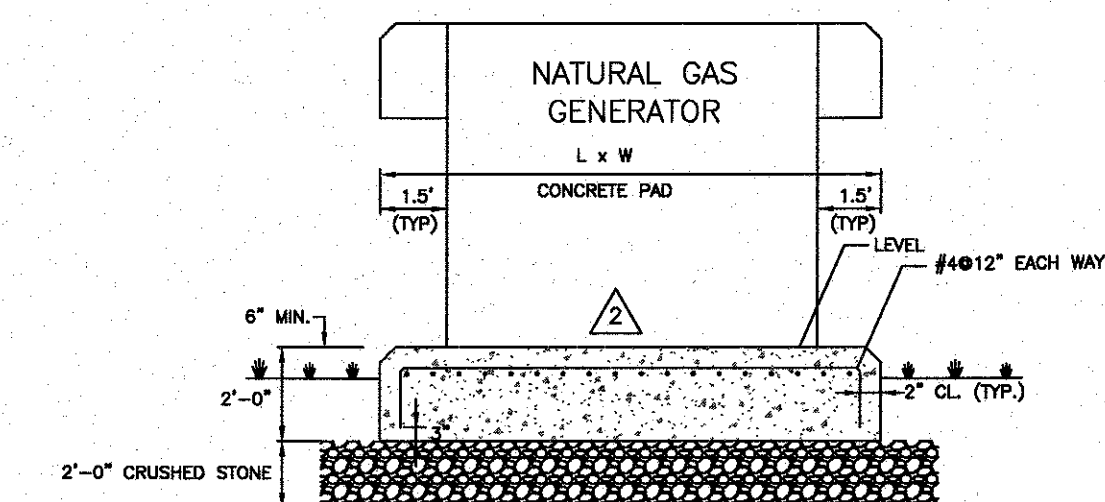
9. THE PANEL BOARD AND PUMP CONTROL PANEL SHALL BE HOUSED IN INDIVIDUAL CUSTOM NEMA 4X METAL ENCLOSURES CABINETS FOR WEATHER PROTECTION AND SECURITY. EACH NEMA 4X ENCLOSURE SHALL BE FURNISHED WITH A HINGED FRONT DOOR WITH HANDLE AND LOCKABLE LATCH. WEATHER PROOF DOOR SEAL RATING SHALL BE ACCOMPLISHED BY THE TURNING OF THE DOOR LEVER HANDLE, SCREW FASTENERS AROUND THE DOOR PERIMETER WILL NOT BE PERMITTED. EACH ENCLOSURE SHALL HAVE AN ENGRAVED NAMEPLATE MOUNTED ON DOOR.
10. DUPLEX RECEPTACLE SHALL BE 20 AMP INDUSTRIAL GRADE WITH GFCI PROTECTION AND A WEATHERPROOF HOUSING WITH HINGED, GASKETED COVER PLATE.
11. CONDUCTORS USED FOR POWER SHALL BE COPPER, TYPE XHHW. MINIMUM SIZE CONDUCTOR SIZE SHALL BE #12AWG.
12. CONDUCTORS USED FOR INSTRUMENTATION, ALARM AND CONTROL WIRING SHALL BE COPPER #14AWG TYPE THHN/W. SHIELDED CABLE
13. ALL CONDUIT SHALL BE GALVANIZED RIGID STEEL CONDUIT. MINIMUM SIZE SHALL BE 3/4 INCH.
14. A RED DOMED ALARM LIGHT SHALL BE MOUNTED ABOVE THE CONTROL CABINET (ABOVE THE FENCE LINE) INDICATING A COMMON ALARM.

15. A SEPARATE TERMINAL STRIP SHALL BE PROVIDED IN THE TELEMETRY CONTROL FOR ALARM CIRCUITS FOR CONNECTION TO SCADA ALARM PANEL AND CELLULAR AUTO DIALER. A SEPARATE (NON-GFI) DUPLEX RECEPTACLE SHALL ALSO BE PROVIDED FOR CELLULAR TRANSMITTER TRANSFORMER(S).
16. ALL ELECTRICAL CONDUITS SHALL BE SEALED AT TERMINAL ENDS TO PREVENT GAS TRANSMISSION, IN ACCORDANCE WITH THE LATEST ELECTRICAL CODE STANDARDS.
17. PROVIDE A WARNING NAME PLATE ON THE MAIN CIRCUIT BREAKER ENCLOSURE MARKED, "CAUTION - TO COMPLETE DISCONNECT SYSTEM, TURN OFF GENERATOR AND OPEN THIS BREAKER".
18. PROVIDE AN EQUIPMENT GROUND WIRE IN EACH RACEWAY AND CABLE CONTAINING FEEDER OR BRANCH CIRCUIT WIRING.
19. PROVIDE AN INDIVIDUAL NEUTRAL CONDUCTOR WITH EACH FEEDER AND BRANCH CIRCUIT HAVING A NEUTRAL CONNECTION. COMMON NEUTRALS SHALL NOT BE PERMITTED.
20. SIGNAL CONDITIONERS SHALL BE INSTALLED ON ALL CONTROL SYSTEMS AS NEEDED TO ENSURE SIGNAL QUALITY AND INTEGRITY.

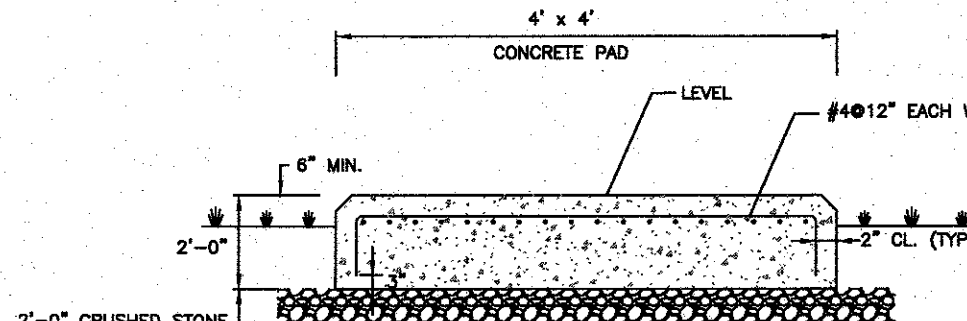
21. PUMP CONTROLS SHALL BE PROVIDED BY THE PUMP MANUFACTURER, FLYGT, AND ALL MASTER CONTROL FUNCTIONS SHALL BE VIA THE CONTROL PANEL AND ALLOW FOR INTERFACING WITH SCADA SYSTEM.
22. SCADA RTU CONTROL PANEL SHALL BE "TOWN STANDARD" INCLUDING ALLEN BRADLEY MICROLOGIC 1400 PLC WITH 20 DISCRETE INPUTS, 16 DISCRETE OUTPUTS, REAL TIME CLOCK, MEMORY MODULE, 4 ANALOG INPUT CHANNELS, 750VA UPS, ETHERNET, RADIO, 5 PORT SWITCH, SURGE ARRESTOR, AND NEMA 12 ENCLOSURE. THE SCADA SHALL MEETS CURRENT TOWN STANDARDS AND START-UP SHALL INCLUDE ALL PARTS & LABOR TO INTERFACE WITH EXISTING TOWN SCADA AT ITS WASTEWATER PLANT.
23. A SEPARATE CELLULAR RADIOL (RACQ GUARD-IT OR MISSION CONTROL) SHALL BE PROVIDED TO CALL OUT TO OPERATIONAL STAFF FOR ALL ALARMS FUNCTIONS DURING THE PERIOD IMMEDIATELY AFTER ACTIVATION UNTIL SUCH TIME AS THE TOWN ASSUMES OWNERSHIP AND OPERATION OF PUMP STATION.
24. ALL ELECTRICAL AND CONTROL PANELS, PUMP MONITORING EQUIPMENT AND AUTOMATIC TRANSFER SWITCH SHALL BE MOUNTED INSIDE A SINGLE SOLID FRAME NEMA 4X RATED ALUMINUM OR SS ENCLOSURE HOUSING ALL EQUIPMENT. THE PUMP STATION ALARM STROBE SHALL BE POLE MOUNTED ABOVE, FENCE ENCLOSURE.



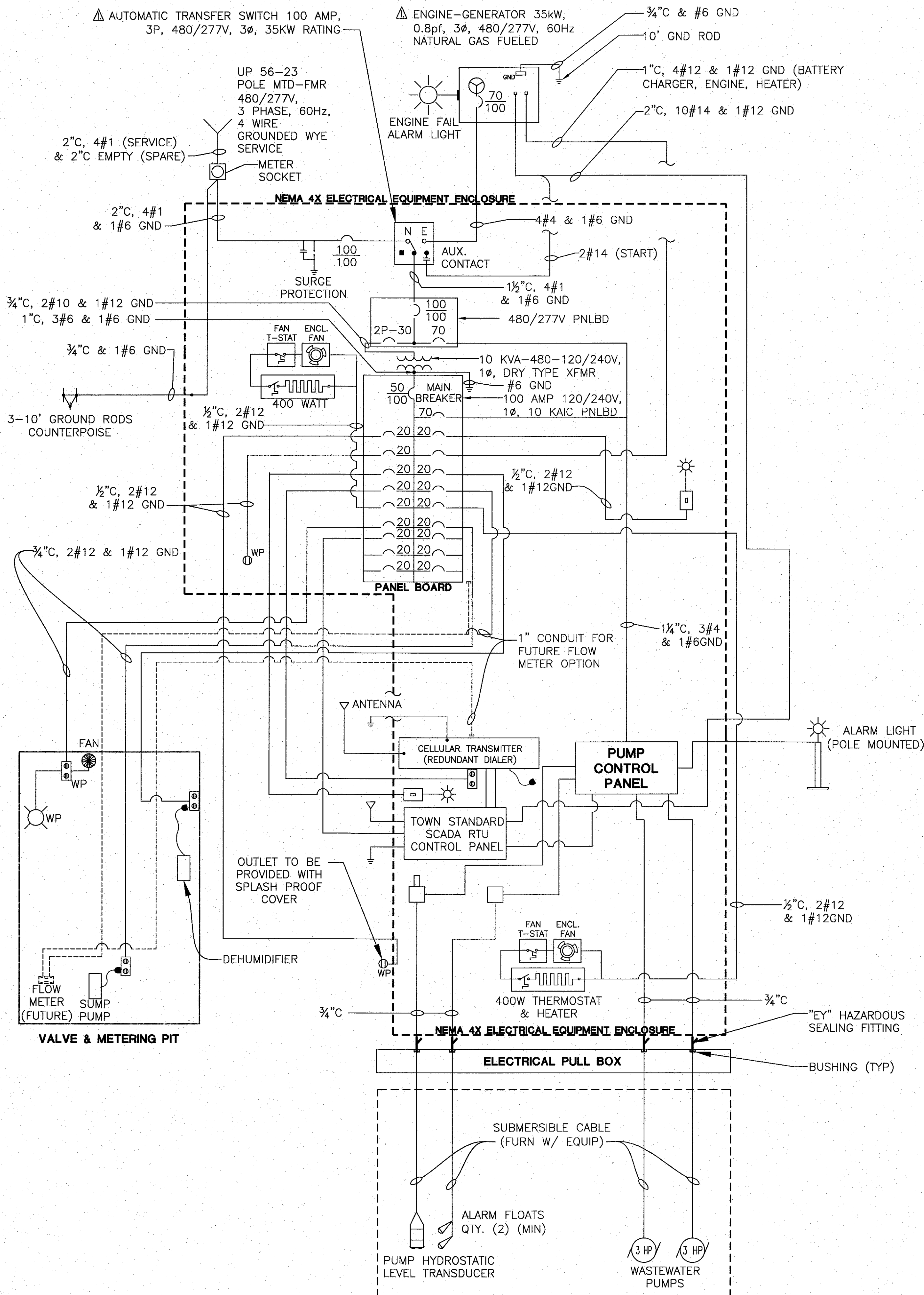
WASTEWATER PUMP
DESIGN POINT: 60 GPM @ 35.5 FEET Tdh
OPERATING POINT 72 GPM @ 43 FEET Tdh
3 HP, 480 V, 3 PHASE
BARMESA PUMPS
SUBMERSIBLE GRINDER PUMP
MODEL BGP 304 DS



PROPOSED GENERATOR HOUSING PAD
SCALE: N.T.S.

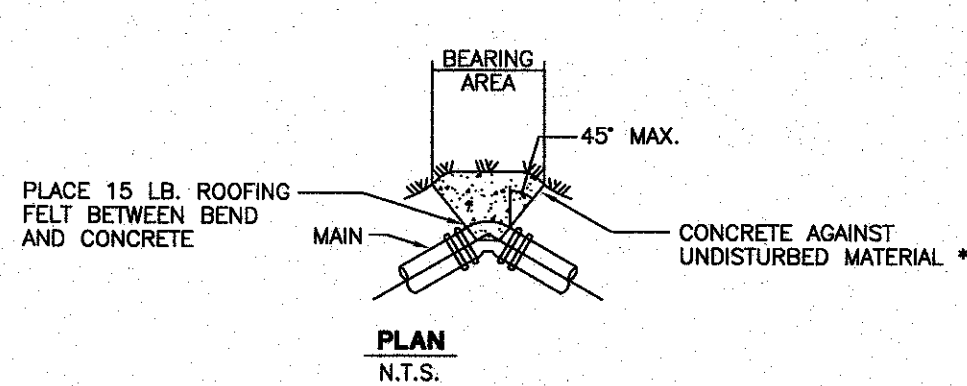


PROPOSED ELECTRICAL PAD
SCALE: N.T.S.



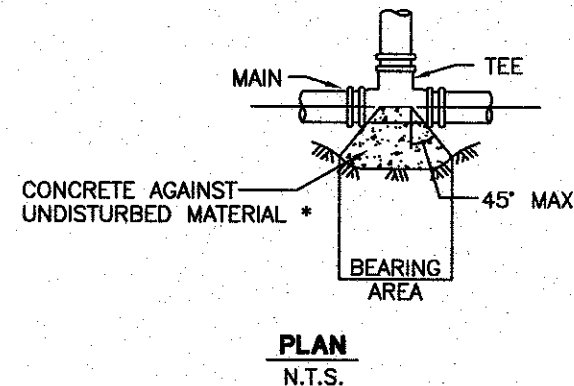
SINGLE LINE DIAGRAM
N.T.S.

DATE: APRIL 13, 2026	
Q:\Projects\2140-64 Haverhill Road, Amesbury - Eval and PSA\CES_CAD\4 ELECTRICAL-4-13-2026.dwg	
CES NO.: 2140-64	SCALE: N.T.S
SHEET WW-4 OF WW-5	



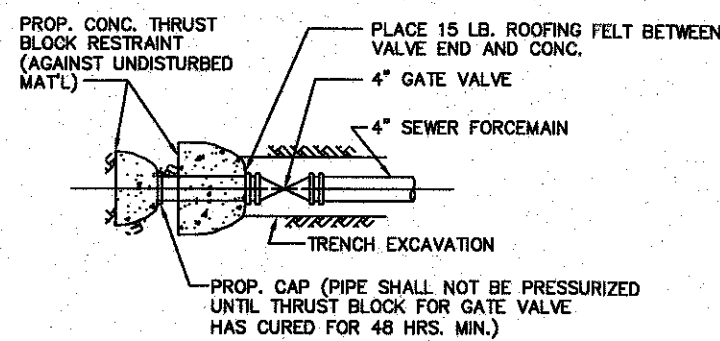
* SEE TABLE ON THRUST BLOCK BEARING FOR THE AREA OF CONCRETE REQUIRED

TYPICAL BEND THRUST BLOCK
NOT TO SCALE



* SEE TABLE ON THRUST BLOCK BEARING FOR THE AREA OF CONCRETE REQUIRED

TYPICAL TEE THRUST BLOCK
NOT TO SCALE



TYPICAL SEWER FORCEMAIN CAPPING DETAIL
N.T.S.

TABLE OF BEARING AREAS IN SQ. FT. AGAINST UNDISTURBED MATERIAL FOR PIPE FITTINGS.

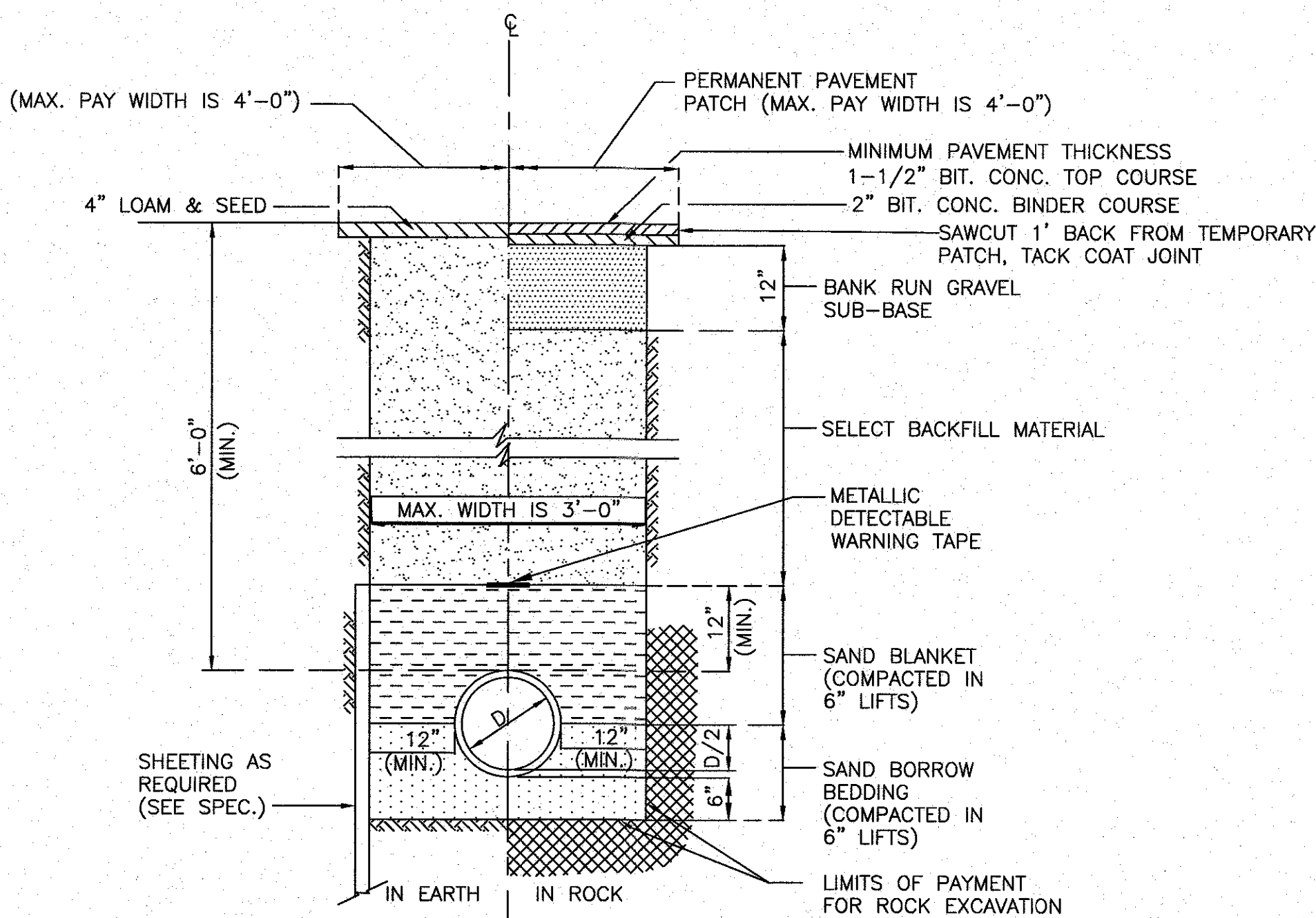
SIZE OF MAIN (IN.)	45° or < BEND	CAP	TEES, WYES, DEADENDS, ETC.
1½"	1	2	1
2"	1	2	1
2½"	1	3	2
3"	2	3	2
4"	2	4	3

LIMITS OF RESTRAINED JOINTS	
ADJACENT FITTING	MIN. LINEAR FEET TO BE RESTRAINED*
4" TEE	32
4"-1/4 BEND	32
4"-1/8 BEND	10
4"-1/16 BEND	10
4"-1/32 BEND	10
4" COUPLING	32
4" DISCHARGE	32

MINIMUM THRUST BLOCK BEARING AREAS FOR PIPE

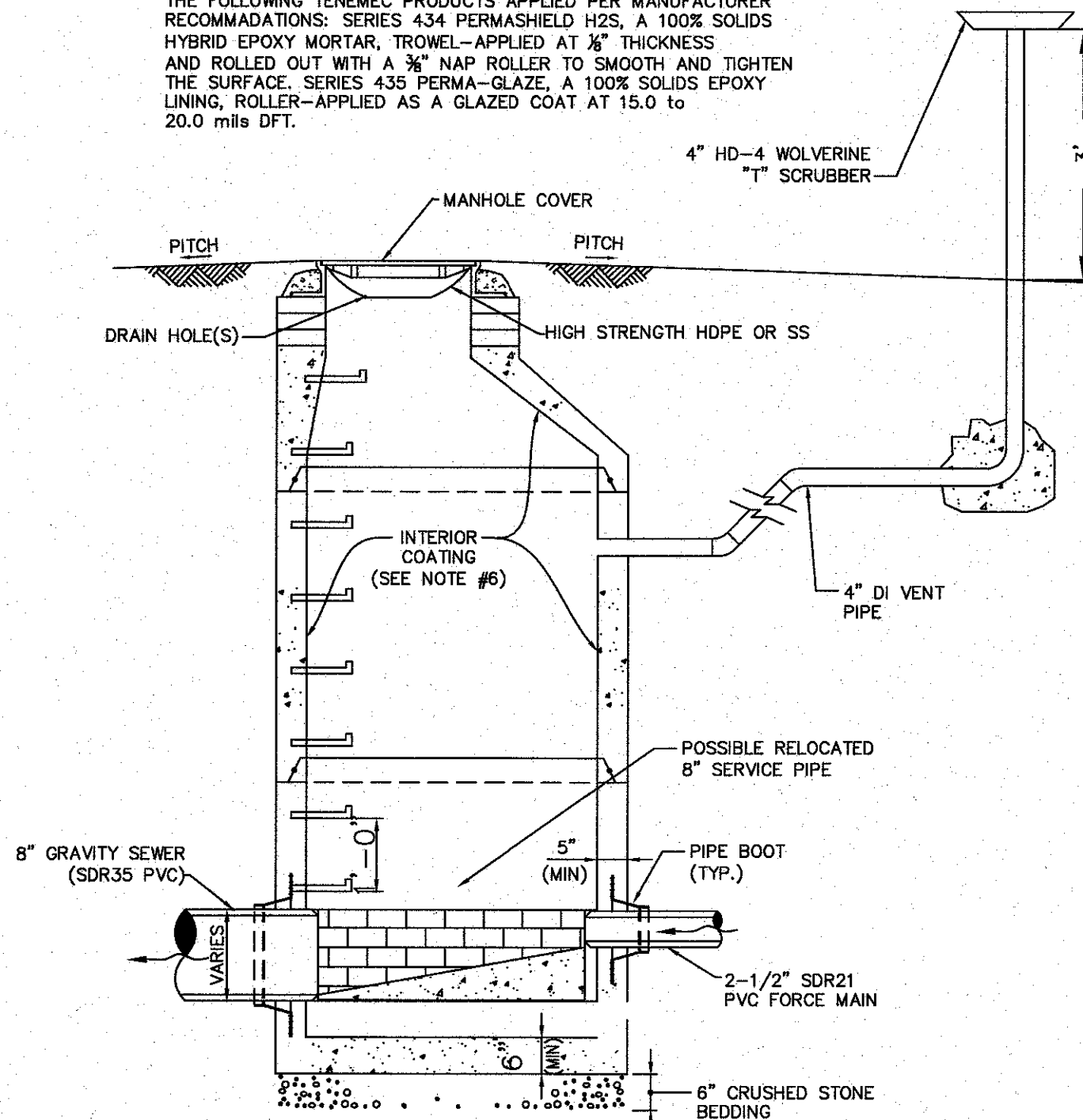
NOTES:

- FOR FITTING WITH LESS THAN 45° DEFLECTION USE BEARING AREAS FOR 45° BEND.
- TABLE OF BEARING AREAS DESIGNED FOR GASKETED PUSH-ON PIPE.
- CONCRETE FOR THRUST BLOCKS SHALL BE 3000psi
- ADDITIONAL CONCRETE BLOCKS ARE TO BE UTILIZED AS SHOWN ON PLANS, AND OTHERWISE PROVIDED.

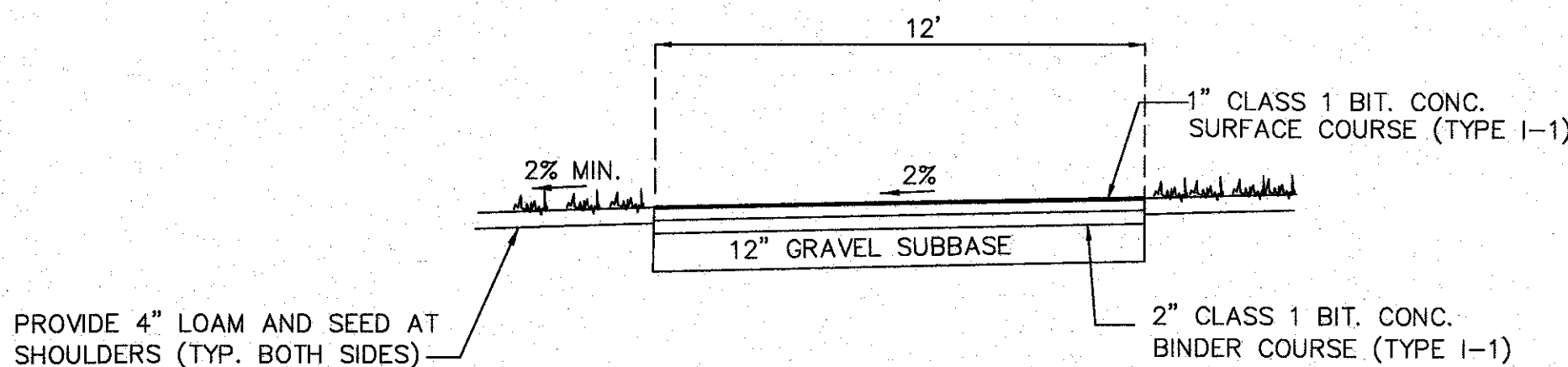
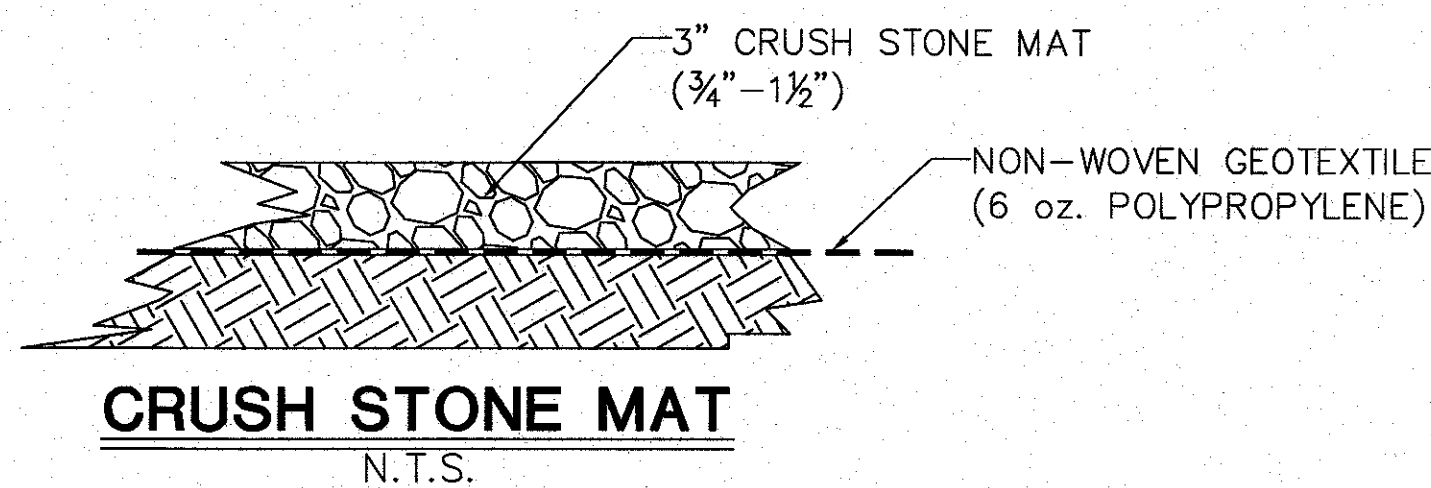


TYPICAL PVC FORCEMAIN TRENCH DETAIL
NOT TO SCALE

- MANHOLE NOTES:**
- CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
 - H-20 DESIGN LOADING PER AASHTO HS-20-44; ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
 - BUTYL RUBBER JOINT SEALANT SHALL BE INSTALLED BETWEEN EACH CONCRETE SECTION.
 - STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC STEP CONFORMS TO LATEST ASTM C478 SPEC.
 - MANHOLE COVERS SHALL BE AS FOLLOWS:
STANDARD — L&B ARON LABELLED "SEWER" AND BE FOUNDRY LK110 OR EQUIVALENT
 - THE MANHOLE INTERIOR SHALL BE COATED WITH A TWO COMPONENT SULFIDE RESISTANT EPOXY LINER. COATING SHALL BE COMPOSED OF THE FOLLOWING TENEMEC PRODUCTS APPLIED PER MANUFACTURER RECOMMENDATIONS: SERIES 434 PERMASHIELD H2S, A 100% SOLIDS HYBRID EPOXY MORTAR, TROWEL-APPLIED AT ⅛" THICKNESS AND ROLLED OUT WITH A ⅝" NAP ROLLER TO SMOOTH AND TIGHTEN THE SURFACE. SERIES 435 PERMA-GLAZE, A 100% SOLIDS EPOXY LINING, ROLLER-APPLIED AS A GLAZED COAT AT 15.0 to 20.0 mils DFT.



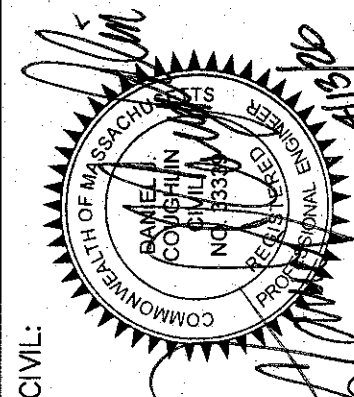
FORCE MAIN DISCHARGE SMH-4 MANHOLE W/ ODOR SCRUBBER
SCALE: N.T.S.



DRIVEWAY CROSS SECTION
N.T.S.

Pulte HOMES

1900 WEST PARK DRIVE
SUITE 180
WESTBOROUGH, MA 01581
www.pulte.com



WASTEWATER PUMP STATION MISCELLANEOUS DETAILS

LEWIS RIDGE WASTEWATER PUMP STATION AND FORCEMAIN
28 HAVERHILL ROAD (ROUTE 110)
AMESBURY, MASSACHUSETTS
Prepared For
PULTE HOMES OF NEW ENGLAND, L.L.C.
1900 WEST PARK DRIVE
SUITE 180
WESTBOROUGH, MA 01581
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Email: mail@coughlinenvironmental.com

DATE: APRIL 13, 2026
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CES NO.: 2140-64
SCALE: N.T.S.

SHEET WW-5 OF WW-5

PERMIT SET - NOT FOR CONSTRUCTION