

**PLAN REFERENCES:**

- "Boundary Survey, Libby Hill Business Park Phase 2, Weeks Road and Enterprise Avenue, Gardiner, Maine" by Maine Coast Surveying, revised through 4/10/07, recorded at the Kennebec County Registry of Deeds in Plan Book 2007-Page 136.
- "Overall Buffer Plan, Libby Hill Business Park Phase 2, Weeks Road and Enterprise Avenue, Gardiner, Maine" by Milone & MacBroom, dated April 3, 2008, recorded at the Kennebec County Registry of Deeds in Plan 2008-Page 111.
- "Libby Hill Business Park Lots 10, 11, 12, Gardiner, Kennebec County, Maine" by Maine Coast Surveying, dated November 21, 2007, recorded at the Kennebec County Registry of Deeds in Plan Book 2008-Page 19.

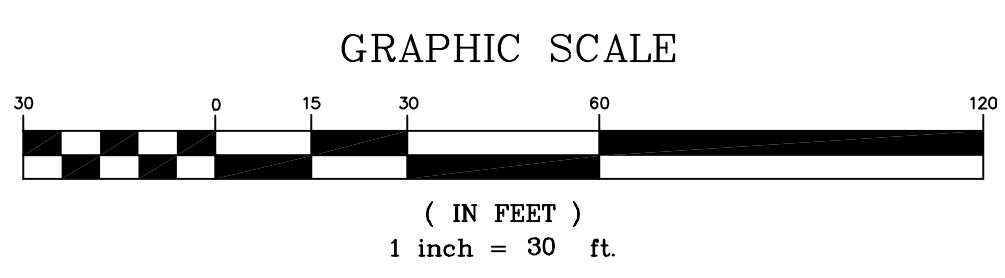
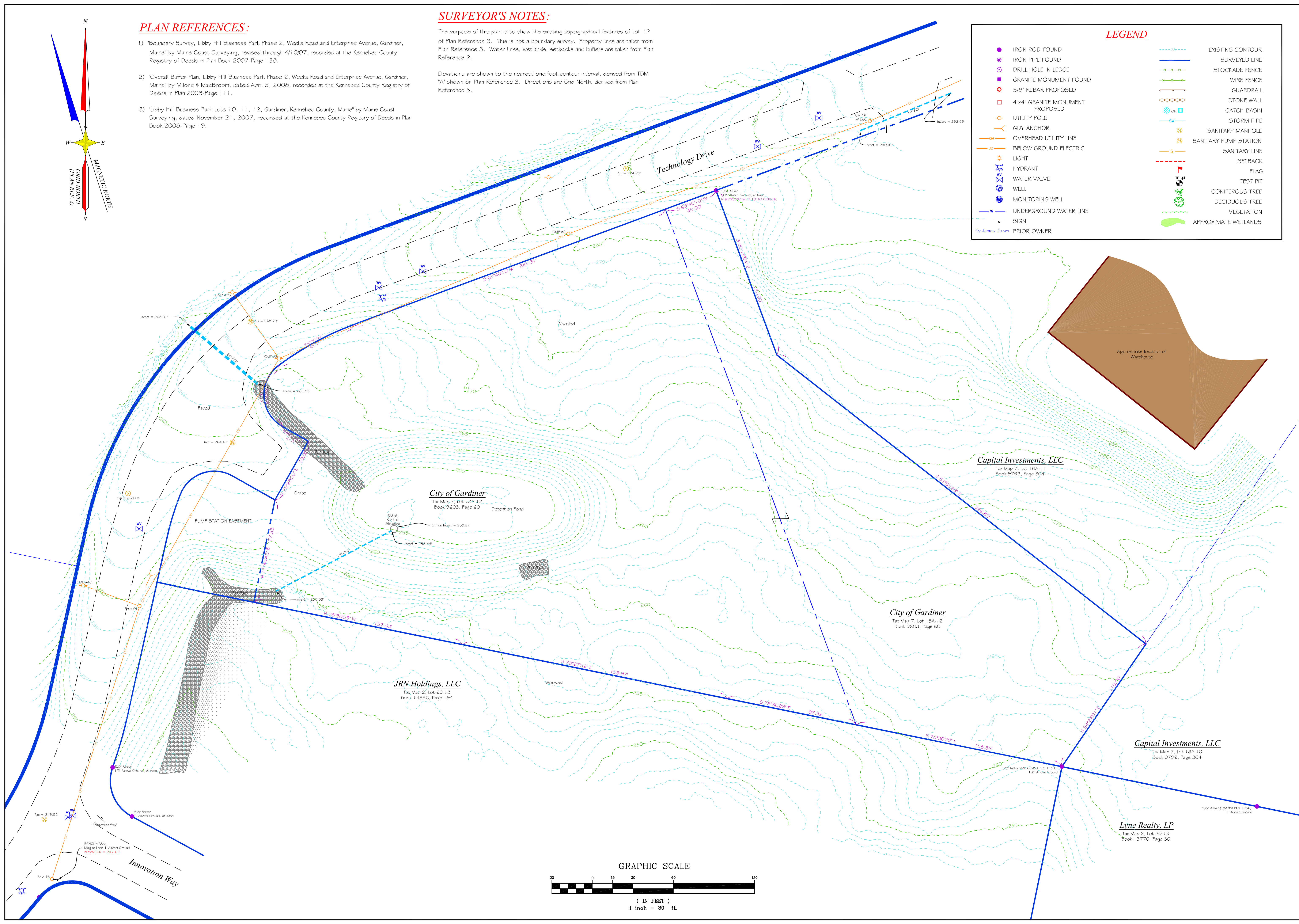
**SURVEYOR'S NOTES:**

The purpose of this plan is to show the existing topographical features of Lot 12 of Plan Reference 3. This is not a boundary survey. Property lines are taken from Plan Reference 3. Water lines, wetlands, setbacks and buffers are taken from Plan Reference 2.

Elevations are shown to the nearest one foot contour interval, derived from TBM "A" shown on Plan Reference 3. Directions are Grid North, derived from Plan Reference 3.

**LEGEND**

●	IRON ROD FOUND	---	EXISTING CONTOUR
○	IRON PIPE FOUND	---	SURVEYED LINE
○	DRILL HOLE IN LEDGE	---	STOCKADE FENCE
■	GRANITE MONUMENT FOUND	---	WIRE FENCE
○	5/8" REBAR PROPOSED	---	GUARDRAIL
□	4"x4" GRANITE MONUMENT PROPOSED	---	STONE WALL
○	UTILITY POLE	---	CATCH BASIN
○	GUY ANCHOR	---	STORM PIPE
---	OVERHEAD UTILITY LINE	---	SANITARY MANHOLE
---	BELOW GROUND ELECTRIC	---	SANITARY PUMP STATION
---	LIGHT	---	SANITARY LINE
---	HYDRANT	---	SETBACK
---	WATER VALVE	---	FLAG
---	WELL	---	TEST PIT
---	MONITORING WELL	---	CONIFEROUS TREE
---	UNDERGROUND WATER LINE	---	DECIDUOUS TREE
---	SIGN	---	VEGETATION
---	PRIOR OWNER	---	APPROXIMATE WETLANDS



THIS PLAN PRELIMINARY

**E.S. COFFIN**  
ENGINEERING & SURVEYING, INC.  
432 Camp Road, Chelsea, Maine 04330  
Phone (207) 653-9472 Fax (207) 653-9016

NO.	REVISIONS	DATE

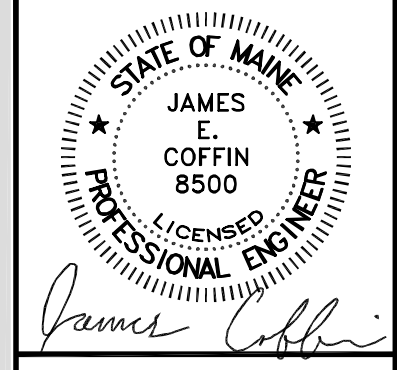
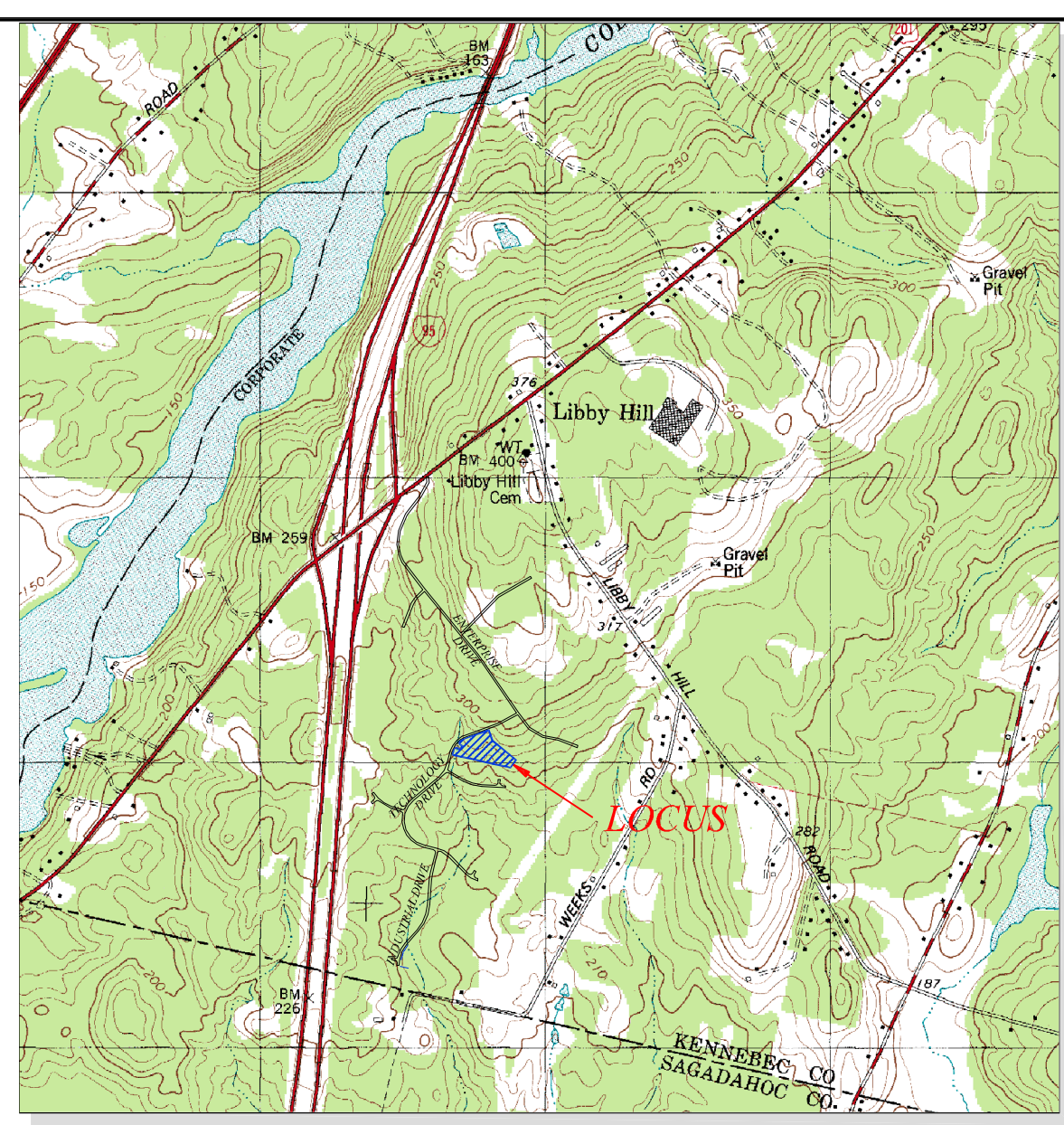
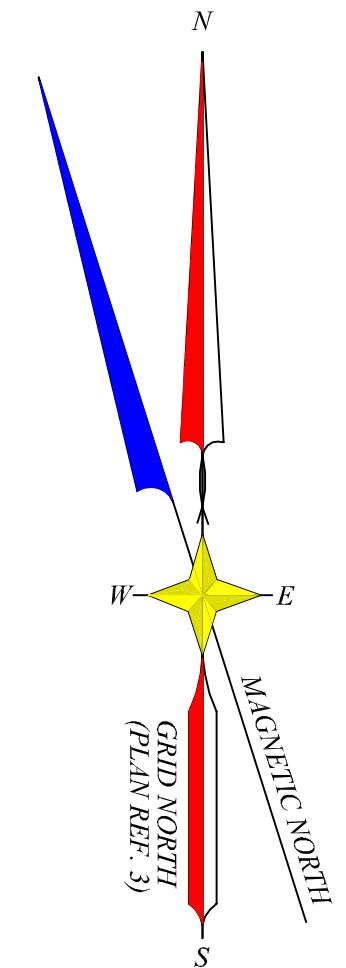
<b>CLIENT/PROJECT:</b>	<b>ELWELL EXCAVATION</b>
<b>LOCATION:</b>	<b>TECHNOLOGY DRIVE</b>
<b>TOWN:</b>	<b>GARDINER</b>
<b>COUNTY:</b>	<b>KENNEBEC</b>
<b>STATE:</b>	<b>MAINE</b>
<b>PROJ. NO.:</b>	<b>2024-117</b>
<b>SHEET TITLE:</b>	<b>TOPOGRAPHIC SURVEY</b>
<b>SCALE:</b>	<b>1 INCH=50 FEET</b>
<b>DRAWN BY:</b>	<b>MIG</b>
<b>CHECKED BY:</b>	<b>KPC</b>
<b>DATE:</b>	<b>DECEMBER 30, 2024</b>

**TS**

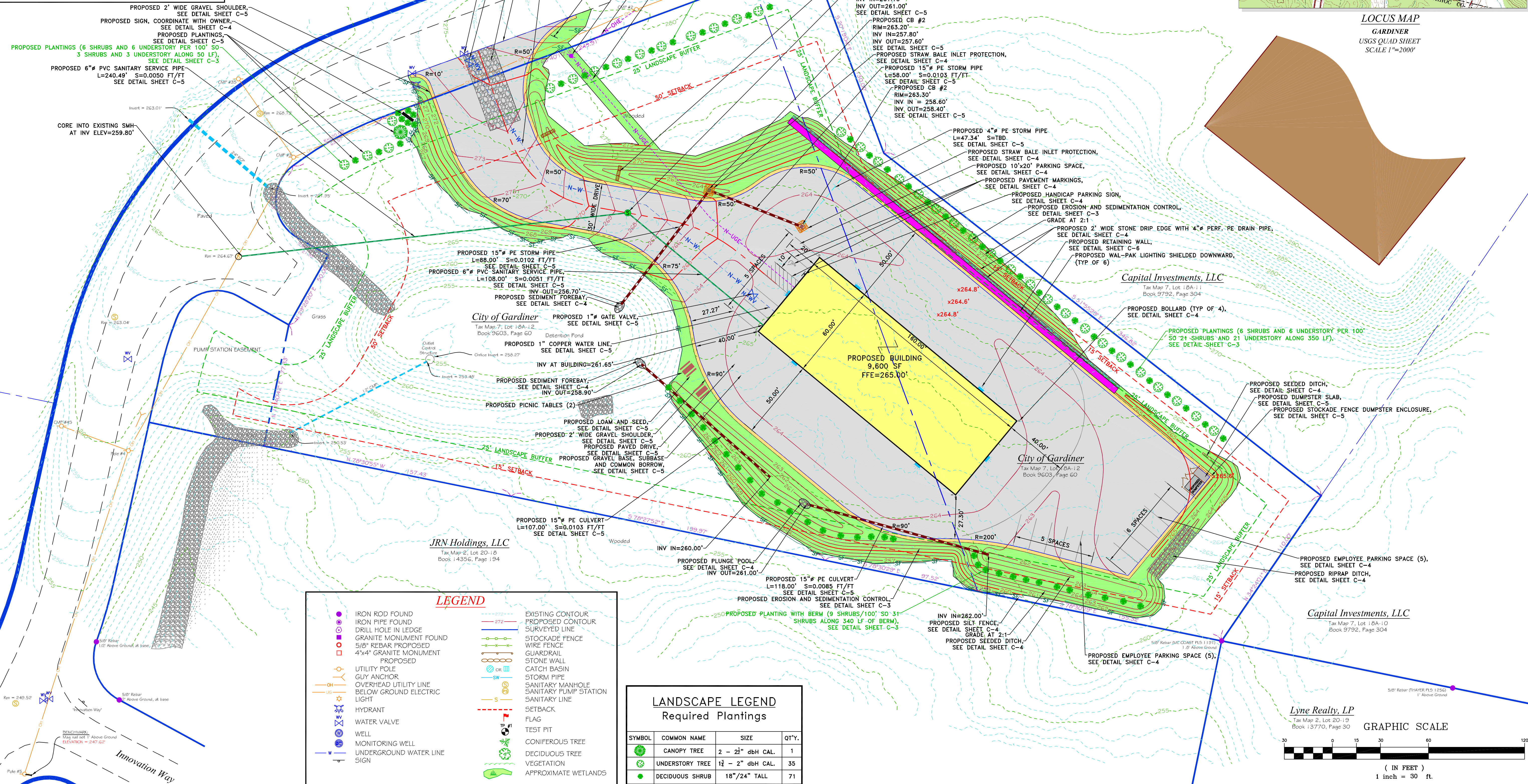


**GENERAL SITE INFORMATION:**

- LAND OWNER: CITY OF GARDINER  
6 CHURCH STREET  
GARDINER, MAINE 04345
- APPLICANT: ELWELL EXCAVATION  
35 OAK STREET  
LIBSON FALLS, ME 04252
- DEED: KENNEBEC COUNTY REGISTRY OF DEEDS  
BOOK 9603 - PAGE 60  
BOOK 9260 - PAGE 21  
APPLICANT HAS P&S AGREEMENT
- GARDINER TAX MAP 7 - LOT 18A-12
- LOT SIZE = 158,554 SF (3.64 AC)
- ZONE: PLANNED INDUSTRIAL COMMERCIAL (PIC)
- IMPERVIOUS AREA:  
EXISTING: 0 SF  
NEW: 53,640 SF (1.23 ACRES)  
TOTAL: 53,640 SF (1.23 ACRES)  
LOT COVERAGE: (53,640/158,554) X 100 = 33.8%
- DISTURBED AREA: 80,875 SF (1.86 ACRES)
- PARKING SPACES:  
REQUIRED:  
WAREHOUSE: (9,600 SF) = 10 SPACES  
ACTUAL = 16 SPACES



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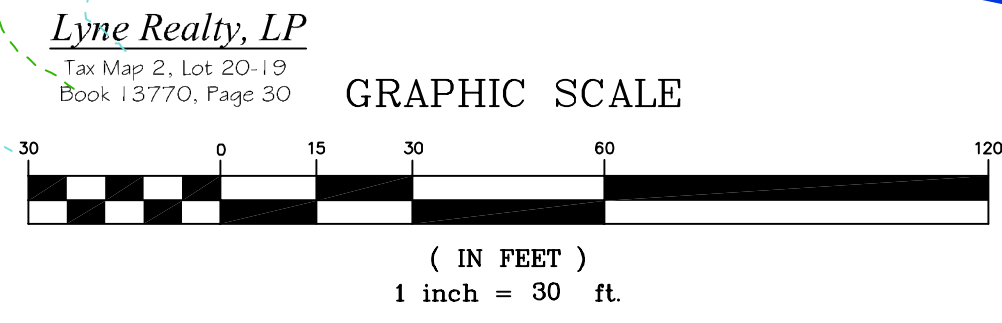


**LEGEND**

●	IRON ROD FOUND	---	EXISTING CONTOUR
○	IRON PIPE FOUND	---	PROPOSED CONTOUR
□	DRILL HOLE IN LEDGE	---	SURVEYED LINE
■	GRANITE MONUMENT FOUND	---	STOCKADE FENCE
□	5/8" REBAR PROPOSED	---	WIRE FENCE
□	4"x4" GRANITE MONUMENT	---	GUARDRAIL
□	PROPOSED	---	STONE WALL
○	UTILITY POLE	---	CATCH BASIN
○	GUY ANCHOR	---	STORM PIPE
○	OVERHEAD UTILITY LINE	---	SANITARY MANHOLE
○	BELOW GROUND ELECTRIC	---	SANITARY PUMP STATION
○	LIGHT	---	SANITARY LINE
○	HYDRANT	---	SETBACK
○	WATER VALVE	---	FLAG
○	WELL	---	TEST PIT
○	MONITORING WELL	---	CONIFEROUS TREE
○	UNDERGROUND WATER LINE	---	DECIDUOUS TREE
○	SIGN	---	VEGETATION
○		---	APPROXIMATE WETLANDS

**LANDSCAPE LEGEND**  
Required Plantings

SYMBOL	COMMON NAME	SIZE	QTY.
●	CANOPY TREE	2 - 21" dbh CAL.	1
●	UNDERSTORY TREE	1 1/2 - 2" dbh CAL.	35
●	DECIDUOUS SHRUB	18"/24" TALL	71



**SITE PLAN**

NO.	REVISIONS	DATE

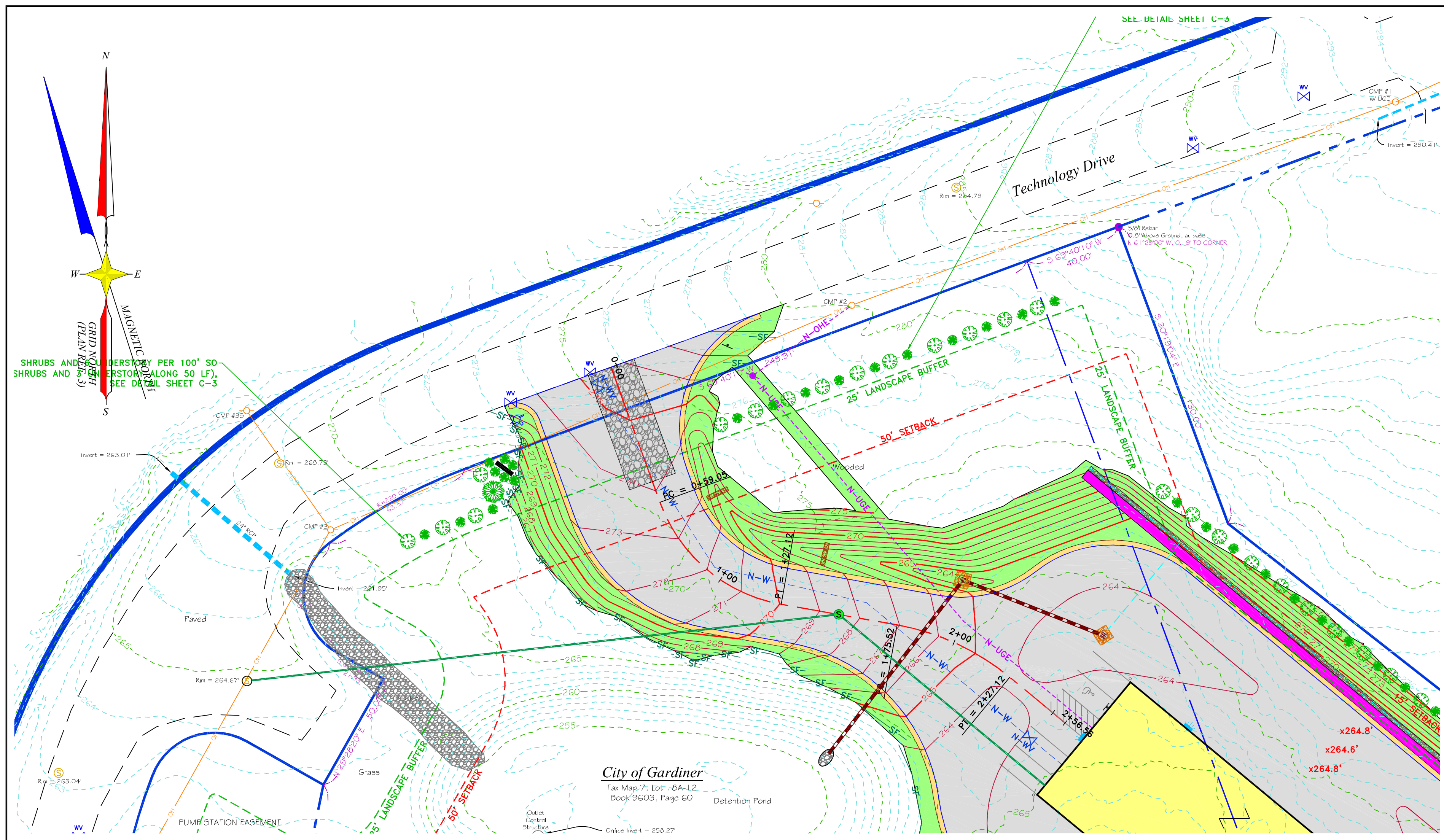
**LIBBY HILL BUSINESS PARK LOT #12**  
**ELWELL EXCAVATION**

SCALE: 1 INCH=30 FEET  
DATE: FEBRUARY 10, 2025  
DRAWN BY: TCH  
CHECKED BY: JEC

CLIENT/PROJECT: LIBBY HILL BUSINESS PARK LOT #12 ELWELL EXCAVATION  
LOCATION: TECHNOLOGY DRIVE  
TOWN: GARDINER COUNTY: KENNEBEC STATE: MAINE  
PROJ. NO. 2024-117

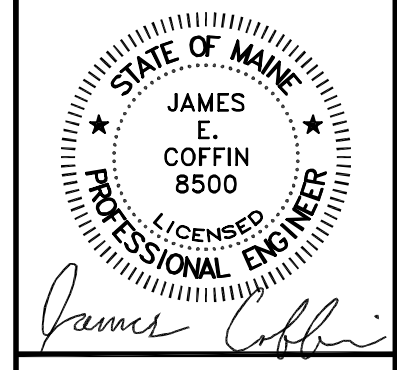
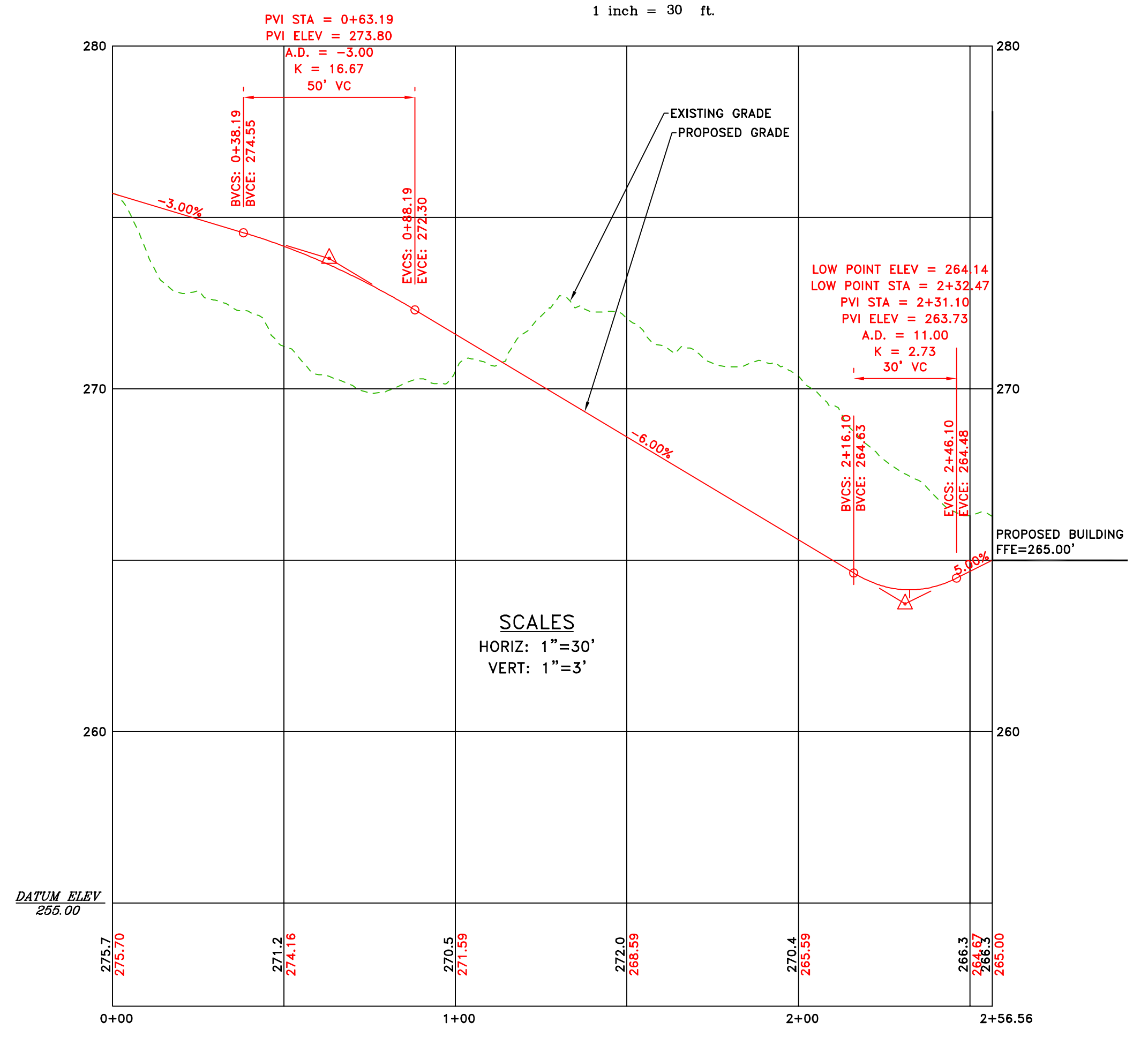
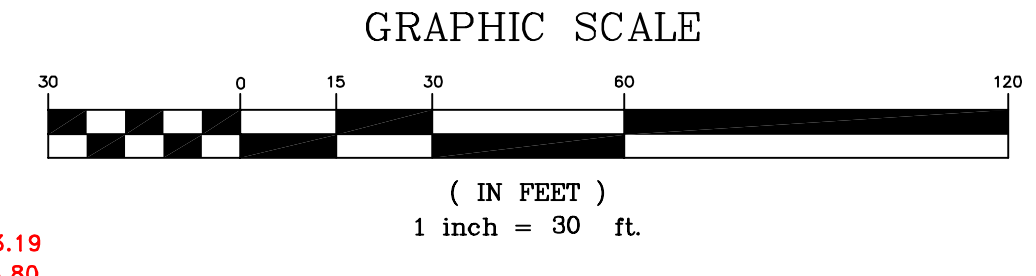
**C-1**





**LEGEND**

● IRON ROD FOUND	--- EXISTING CONTOUR
○ IRON PIPE FOUND	--- PROPOSED CONTOUR
○ DRILL HOLE IN LEDGE	— SURVEYED LINE
■ GRANITE MONUMENT FOUND	— STOCKADE FENCE
○ 5/8" REBAR PROPOSED	— WIRE FENCE
□ 4"x4" GRANITE MONUMENT PROPOSED	— GUARDRAIL
○ UTILITY POLE	— STONE WALL
○ GUY ANCHOR	— CATCH BASIN
○ OVERHEAD UTILITY LINE	— STORM PIPE
○ BELOW GROUND ELECTRIC	○ SANITARY MANHOLE
○ LIGHT	○ SANITARY PUMP STATION
○ HYDRANT	— SETBACK
○ WATER VALVE	— FLAG
○ WELL	○ TEST PIT
○ MONITORING WELL	○ CONIFEROUS TREE
— UNDERGROUND WATER LINE	○ DECIDUOUS TREE
— SIGN	— VEGETATION
— PRIOR OWNER	— APPROXIMATE WETLANDS



NO.	REVISIONS	DATE

**CLIENT/PROJECT:** LIBBY HILL BUSINESS PARK LOT #12  
**ELWELL EXCAVATION**

**LOCATION:** TECHNOLOGY DRIVE  
**TOWN:** GARDINER COUNTY: KENNEBEC STATE: MAINE

**SHEET TITLE:** DRIVEWAY PLAN AND PROFILE

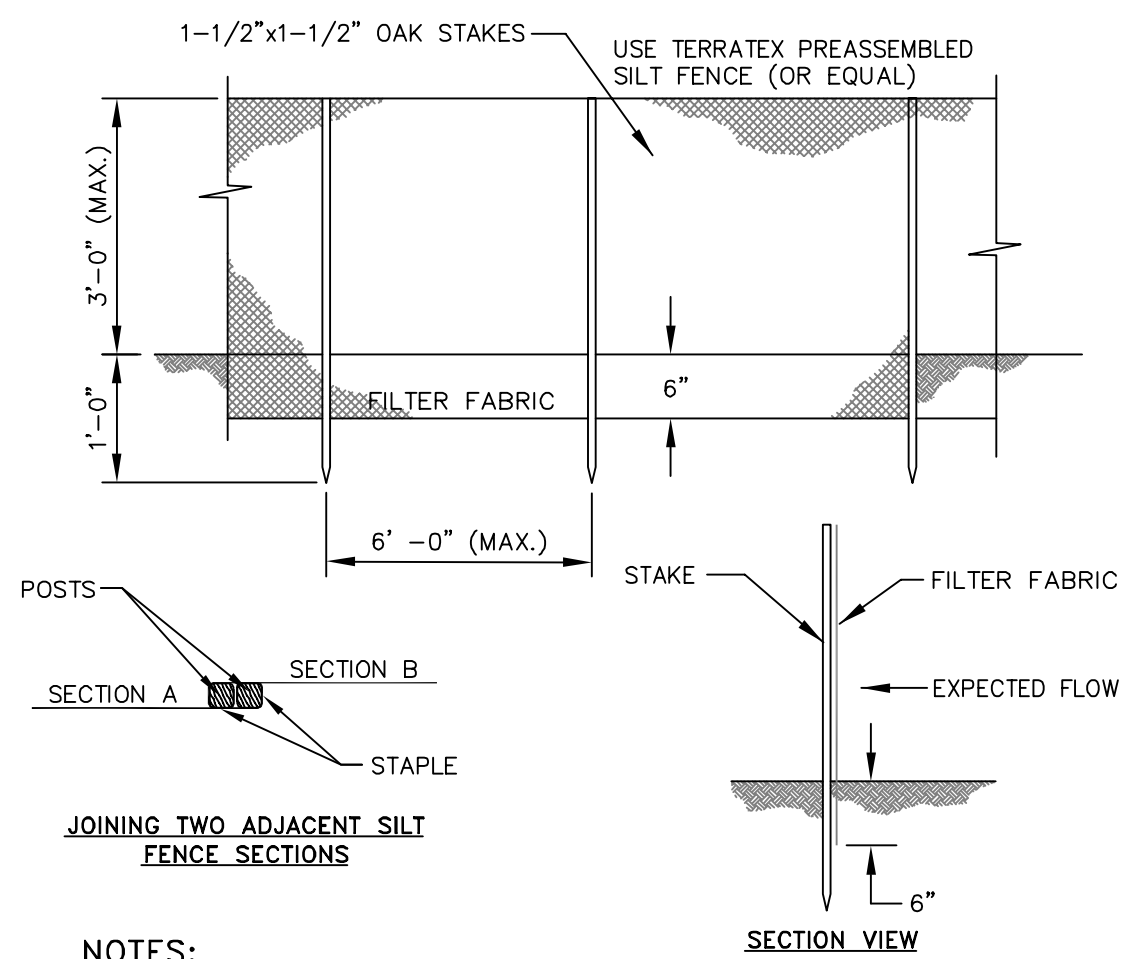
**SCALE:** HORIZ: 1"=30' VERT: 1"=3'  
**DATE:** FEBRUARY 10, 2025  
**DRAWN BY:** TGH  
**CHECKED BY:** JEC

**PROJ. NO. 2024-117**









**NOTES:**  
SILT FENCE AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

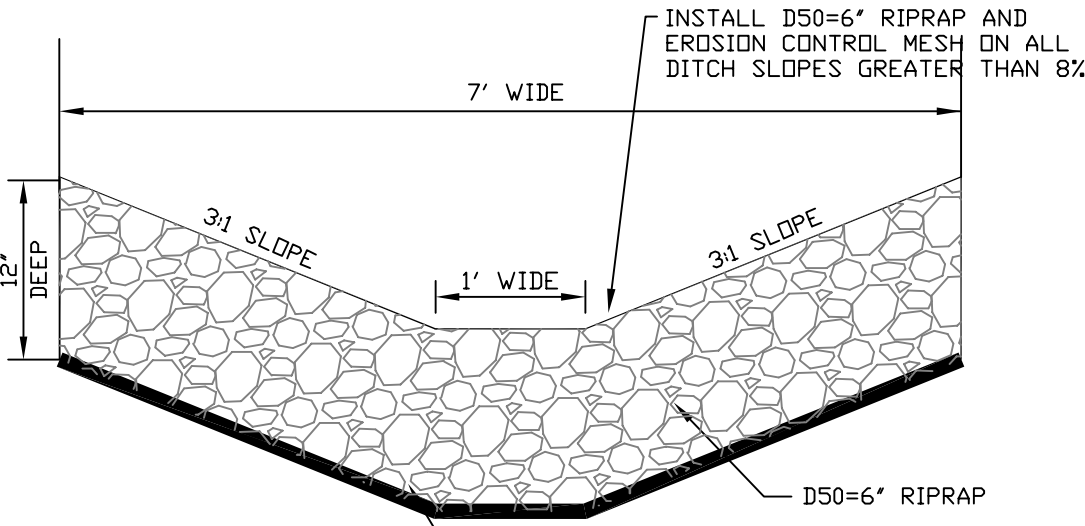
SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.

SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

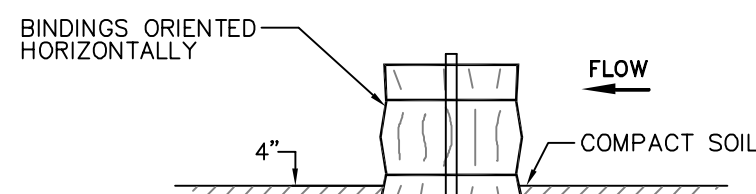
**SILT FENCE DETAIL**

NOT TO SCALE



**RIPRAP DITCH DETAIL**

NOT TO SCALE

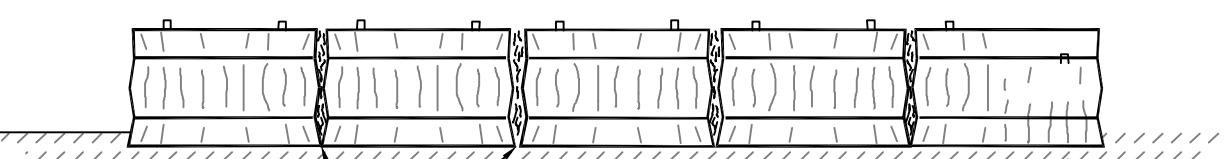


**MAINTENANCE**

- THE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
- CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
- NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT SHALL BE ACCOMPLISHED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. THEY MUST BE REMOVED WHEN THE BARRIER IS REMOVED.

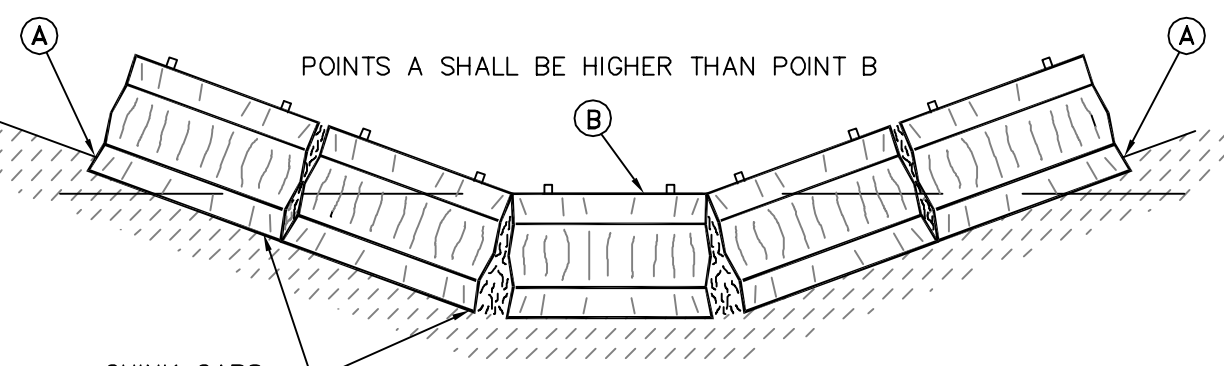
**NOTES:**

- BALES ARE HAY OR STRAW, DIMENSIONS: 14" x 18" x 30", WIRE OR NYLON, PLACED IN DRAINAGE AREAS, UPON THE CONTOUR OF THE GROUND. BALES ARE TO BE PLACED IN A ROW, WITH ENDS TIGHTLY SET AGAINST THE ADJACENT BALE.
- EACH BALE IS TO BE EMBEDDED IN THE SOIL A MINIMUM OF 4" AND ANCHORED IN PLACE BY STAKES DRIVEN THRU THE BALES INTO THE GROUND AT LEAST 18". THE STAKES ARE TO BE DRIVEN IN SUCH A MANNER AS TO FORCE THE ENDS OF THE BALES TOGETHER. STAKES MAY BE REBAR STEEL PICKETS, 2" x 2" SOFTWOOD, OR 1" x 1" HARDWOOD.



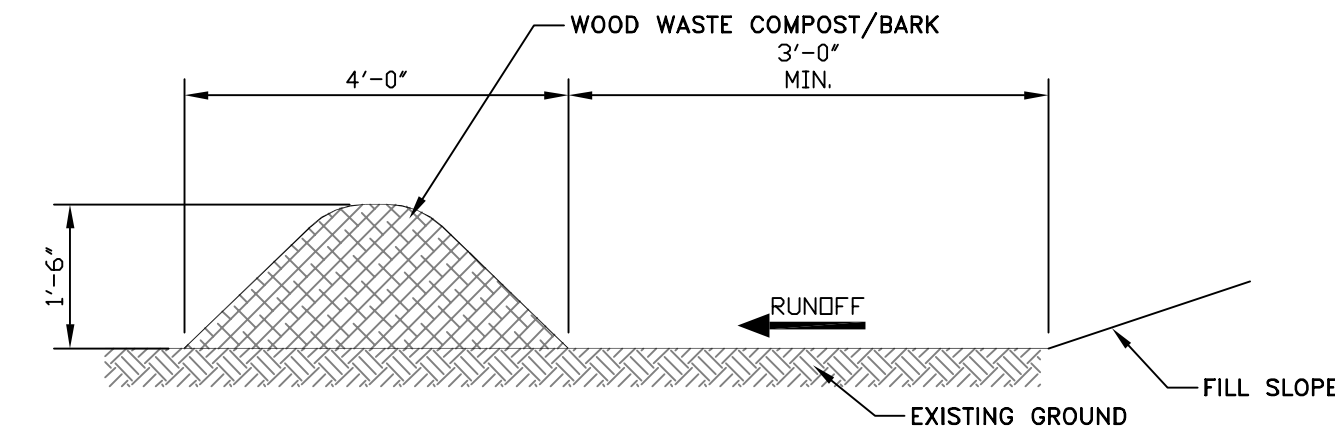
**BALE BARRIER**

NOT TO SCALE



**DITCH BALE BARRIER**

NOT TO SCALE



**WOOD WASTE COMPOST/BARK FILTER BERMS**

THE FILTER BERM SHALL CONSIST OF A WOOD WASTE COMPOST/BARK MULCH MIX OR RECYCLED COMPOSTED BARK FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER-FLUME LOG HANDLING SYSTEMS. COMPOSTED MIXES CAN BE USED UPON APPROVAL OF THE OFFICE OF ENVIRONMENTAL SERVICES LANDSCAPE UNIT.

THE MIX SHALL CONFORM TO THE FOLLOWING STANDARDS:

- A. MOISTURE CONTENT - 30-60%
- B. pH - 5.0-8.0
- C. SCREEN SIZE - 100% LESS THAN 3", MAXIMUM 70% LESS THAN 1".
- D. NO LESS THAN 40% ORGANIC MATERIAL (DRY WEIGHT) BY LOSS OF IGNITION
- E. NO STONES LARGER THAN 2" IN DIAMETER

THE COMPOSTED BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.

**NOTE:**

WOOD WASTE COMPOST/BARK FILTER BERMS MAY BE USED IN COMBINATION WITH SILT FENCE TO IMPROVE SEDIMENT REMOVAL AND PREVENT CLOGGING OF THE WOOD WASTE COMPOST/BARK BERM BY LARGER SEDIMENT PARTICLES. (SILT FENCE PLACED TO FILTER RUNOFF BEFORE WOOD WASTE COMPOST/BARK)

**WOOD WASTE COMPOST/BARK FILTER BERM ALTERNATIVE**

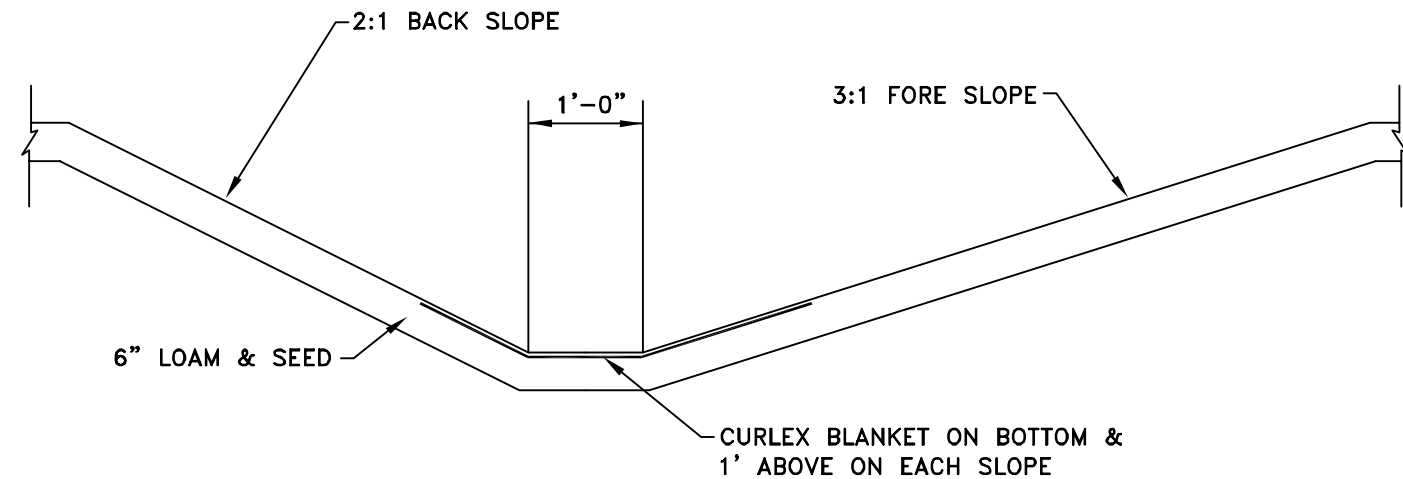
NOT TO SCALE

**SPECIFICATIONS**

UPON FINAL GRADING, THE DISTURBED AREAS SHALL BE IMMEDIATELY SEED TO PERMANENT VEGETATION AND MULCHED. THE DITCH WILL NOT BE UTILIZED AS AN OUTLET UNTIL A DENSE, VIGOROUS VEGETATIVE COVER HAS BEEN OBTAINED. NETTING OR EXCELSIOR MESH SHALL BE INSTALLED AT THE BASE OF THE VEGETATIVE CHANNEL.

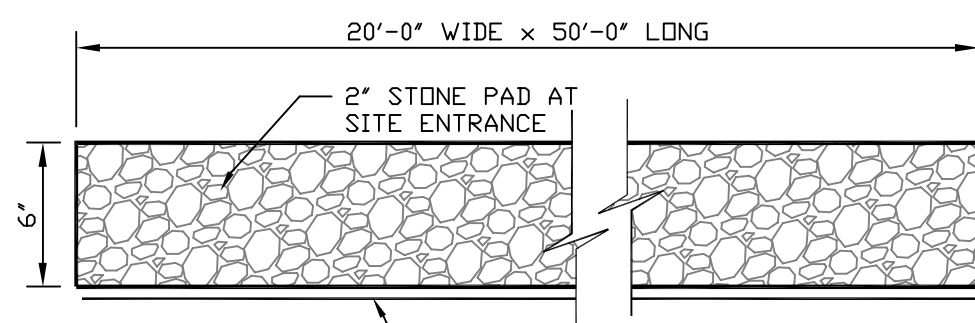
**MAINTENANCE**

MOW WATERWAY AT LEAST ONCE ANNUALLY. WHEN PRACTICAL, DELAY MOWING UNTIL AFTER JULY 15TH TO ACCOMMODATE GROUND NESTING WILDLIFE. MOW TO A HEIGHT OF 4 TO 6 INCHES TO HELP MAINTAIN GOOD SURFACE PROTECTION. EXCESSIVE GROWTH SHALL BE REMOVED. DO NOT MOW LATER THAN 30 DAYS PRIOR TO THE FIRST KILLING FROST.



**SEEDDED DITCH DETAIL**

NOT TO SCALE

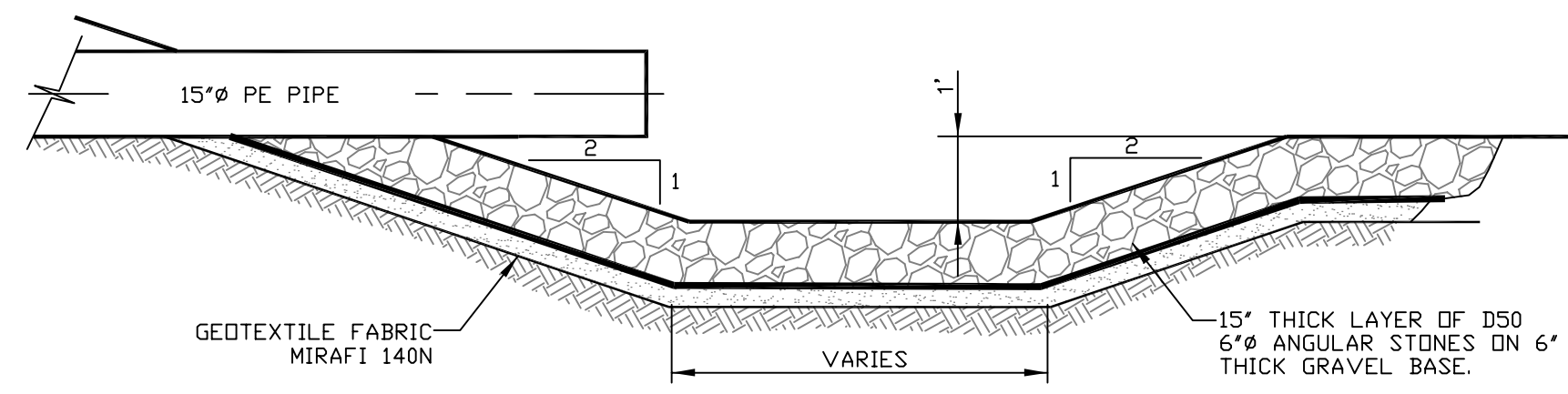


**NOTES:**

- 1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO ROAD.

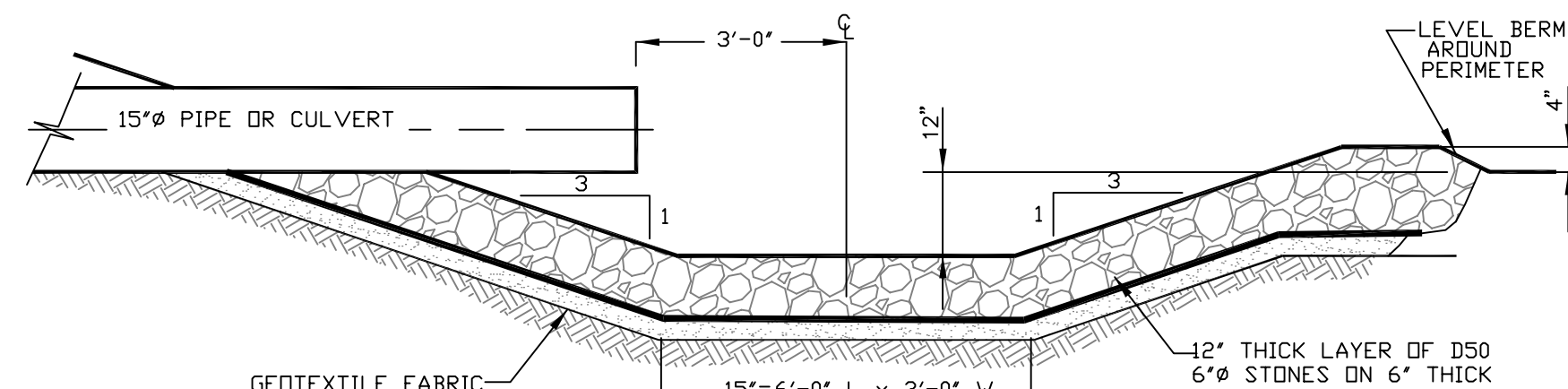
**STABILIZED CONSTRUCTION ENTRANCE**

NOT TO SCALE



**SEDIMENT FOREBAY SECTION**

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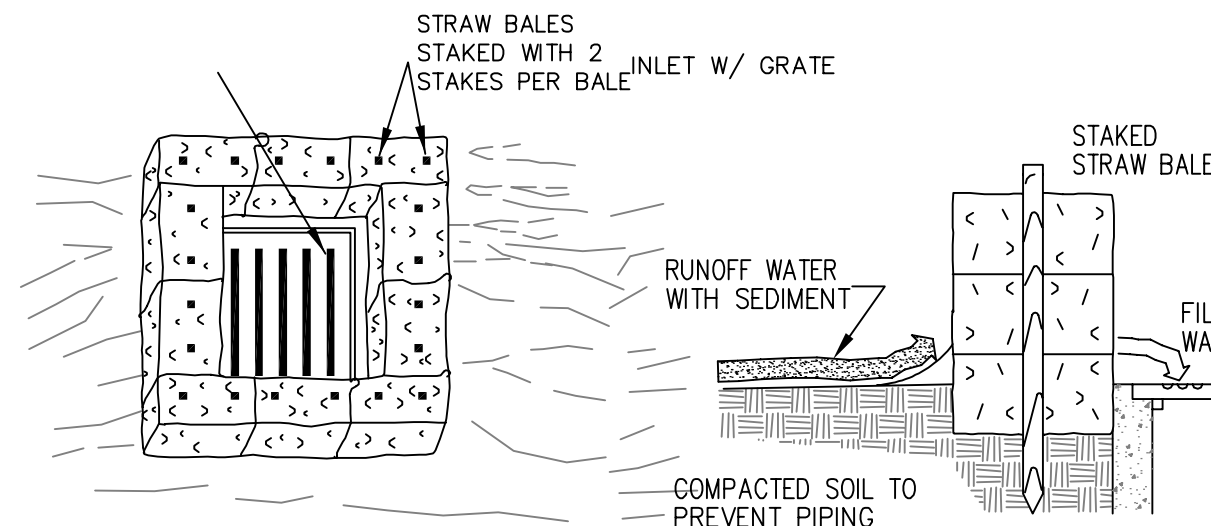


**PLUNGE POOL SECTION**

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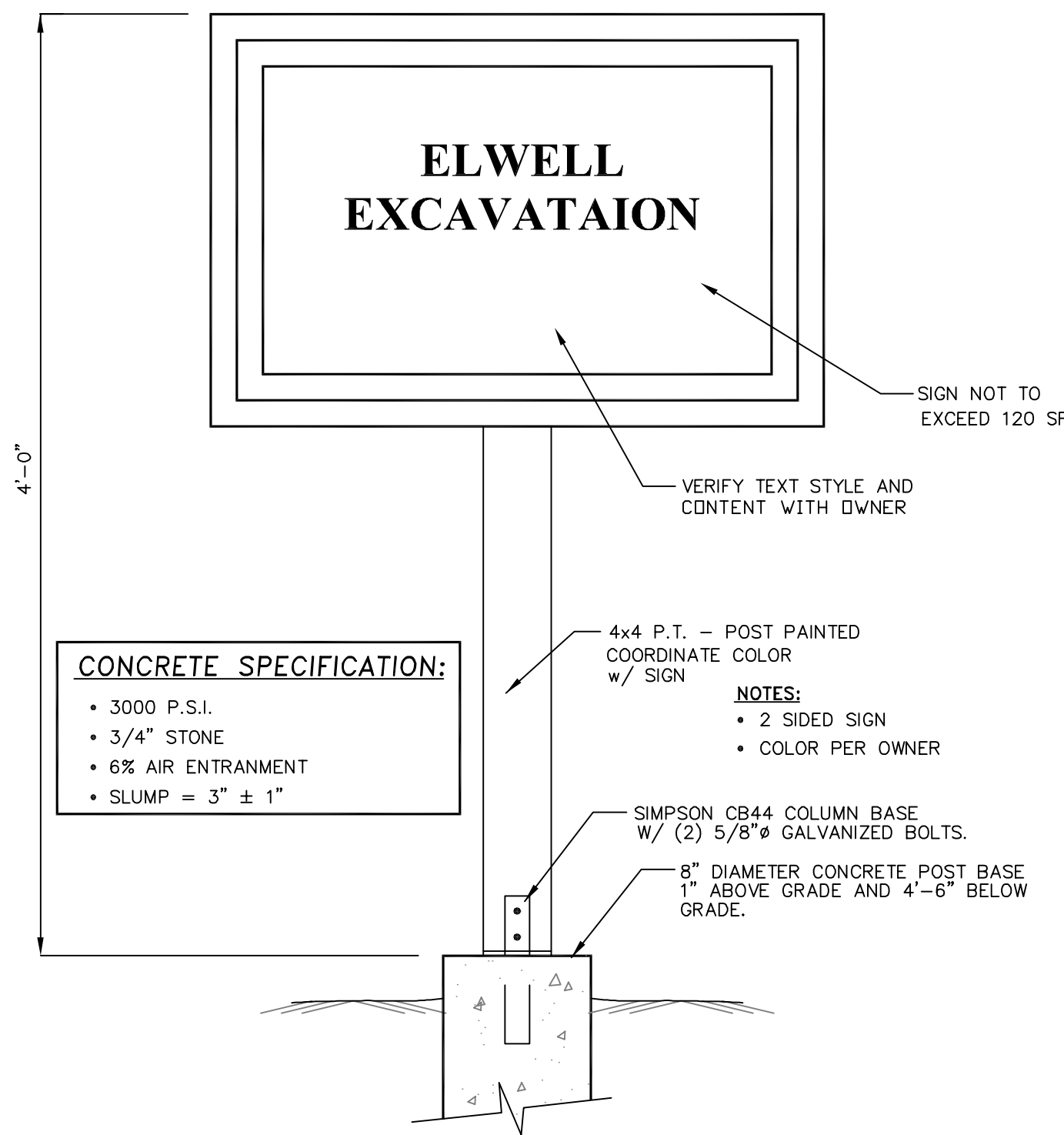
**STRAW BALE INLET NOTE**  
CONSTRUCTION SPECIFICATIONS

- STRAW BALE INLET STRUCTURE
  - A: BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED WITH BINDINGS ORIENTED AROUND THE SIDE RATHER THAN OVER AND UNDER THE BALES.
  - B: BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.
  - C: THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED AROUND THE INLET THE WIDTH OF A BALE TO A MINIMUM DEPTH OF 4 INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
  - D: EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBAR DRIVEN THROUGH THE BALE.
  - E: LOOSE STRAW SHALL BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.



**STRAW BALE INLET PROTECTION**

NOT TO SCALE



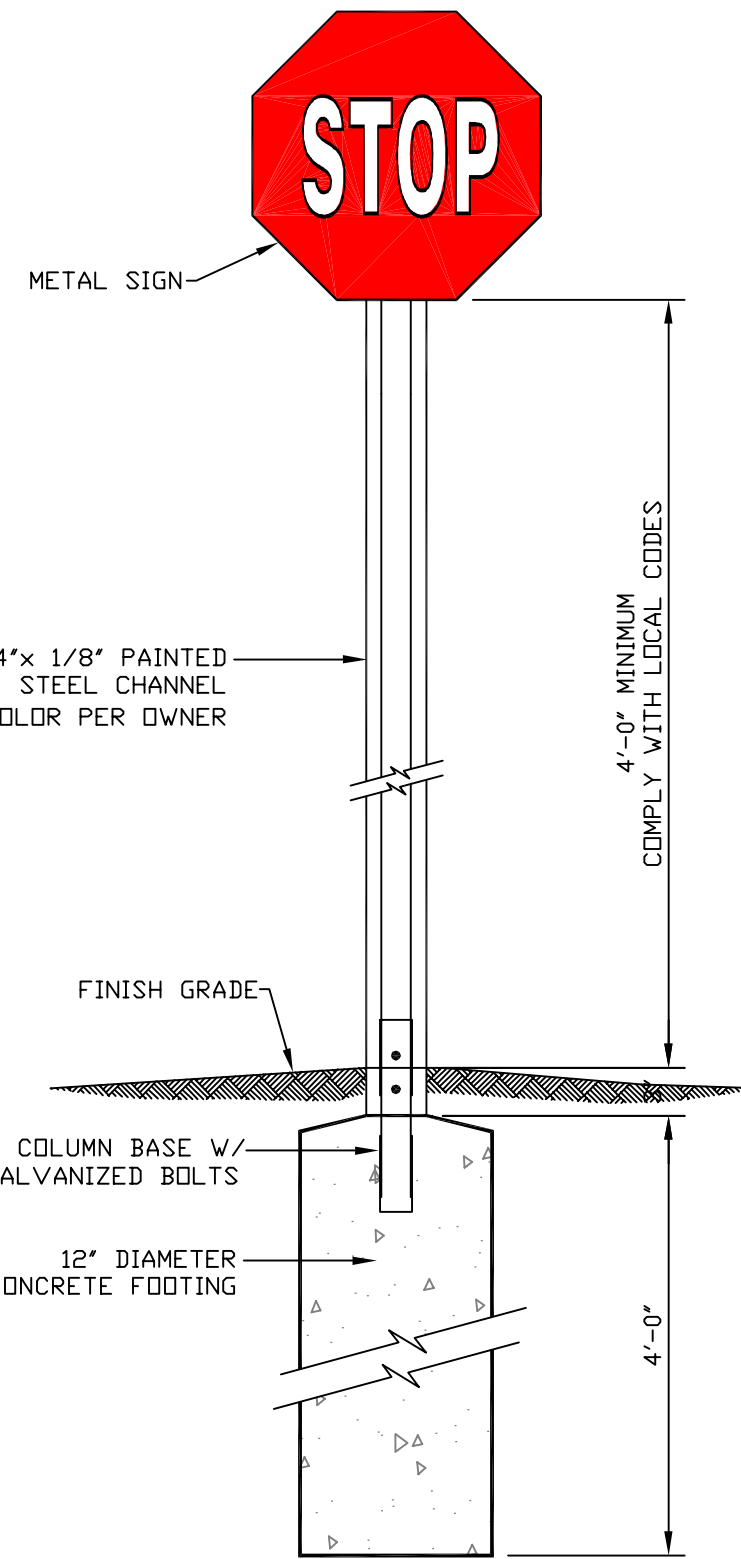
**SINGLE SIDED ENTRANCE SIGN**

NOT TO SCALE

**CONCRETE SPECIFICATION:**

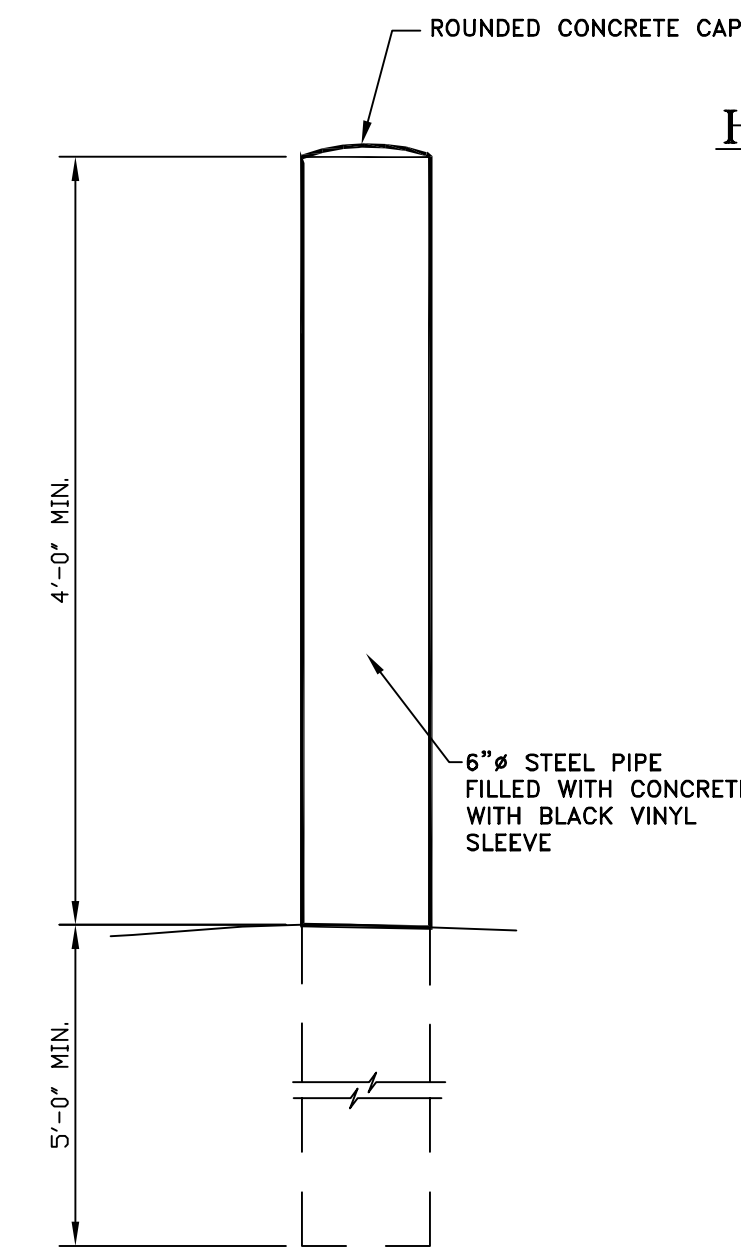
- 3000 P.S.I.
- 3/4" STONE
- 6% AIR ENTRAINMENT
- SLUMP = 3" ± 1"

- NOTES:**
- 2 SIDED SIGN
  - COLOR PER OWNER



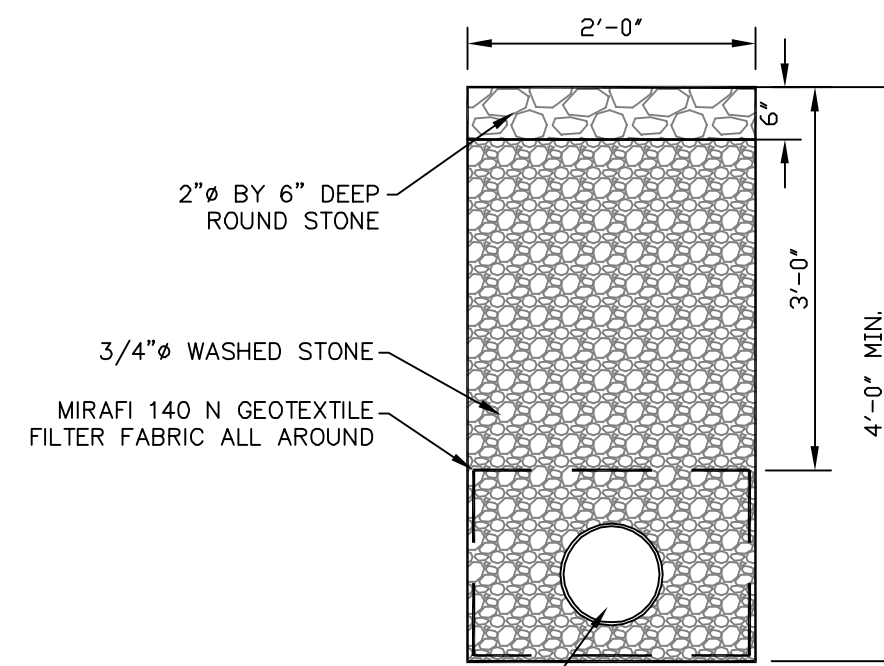
**TYPICAL STOP SIGN DETAIL**

NOT TO SCALE



**BOLLARD DETAIL**

NOT TO SCALE

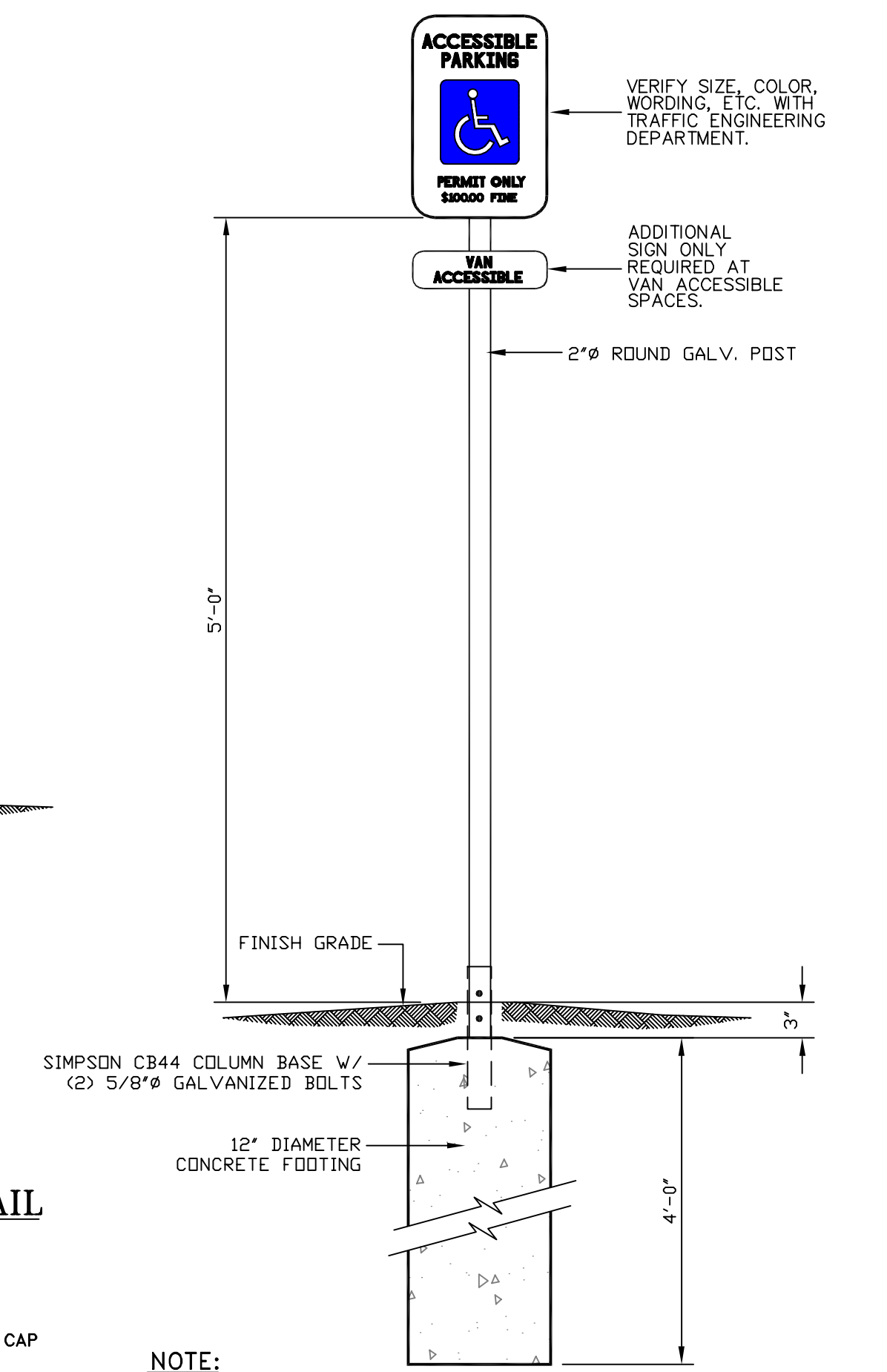


**MAINTENANCE**

REGULAR INSPECTIONS MUST BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH SIGNIFICANT RAINFALL. SEDIMENT MUST BE REMOVED WHEN VISIBLE AT THE TOP OF THE DRAIN. WEEDS AND OTHER DEBRIS SHALL BE REMOVED FROM DRAIN PERIODICALLY AFTER ACCUMULATION. THE AREA IN AND AROUND THE DRAIN SHALL BE MOVED AT LEAST SEMI-ANNUALLY. SHOULD DRAIN BECOME PLUGGED OR BROKEN THAT SECTION SHALL BE REPLACED IMMEDIATELY.

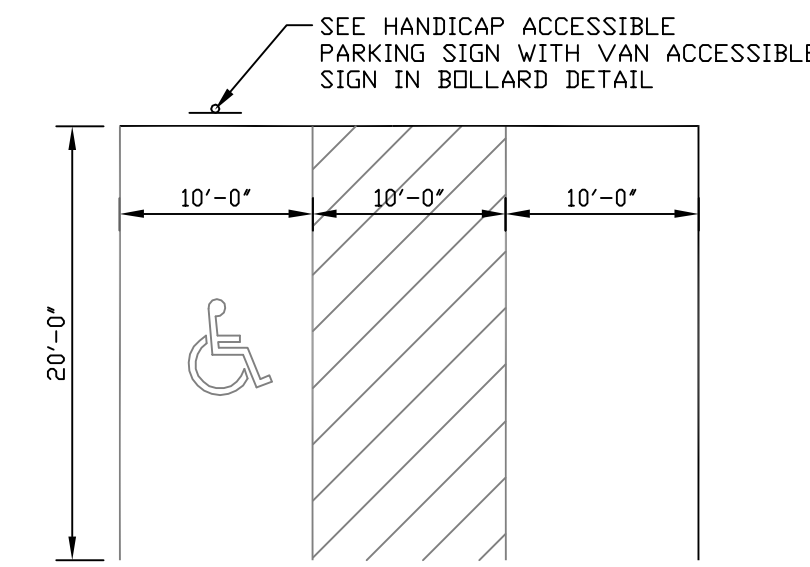
**STONE DRIP EDGE DETAIL**

NOT TO SCALE



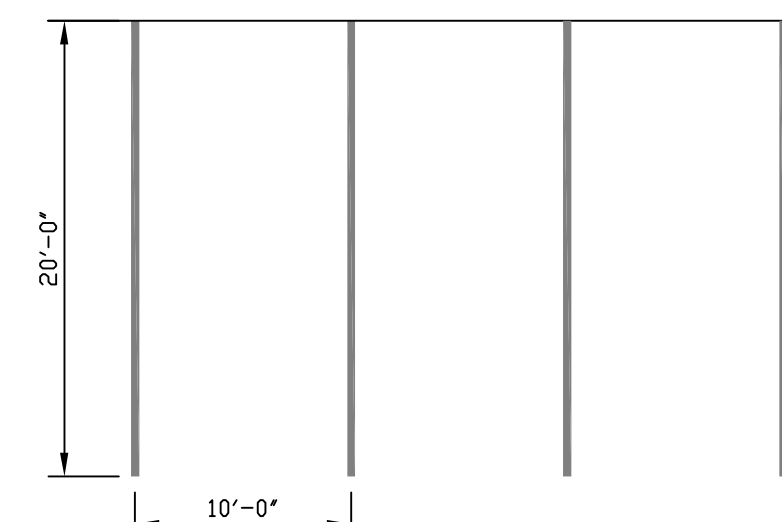
**HANDICAP ACCESSIBLE PARKING SIGN DETAIL**

NOT TO SCALE



**HANDICAP PARKING DETAIL**

NOT TO SCALE



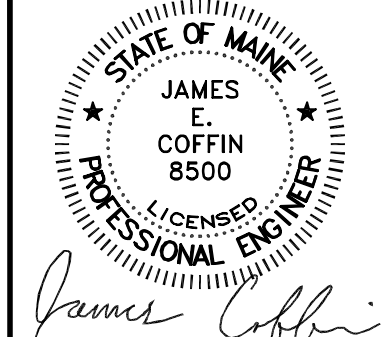
**TYPICAL VEHICLE PARKING STALL**

**SPECIFICATIONS**

PAVEMENT MARKING PAINT FOR FINAL AND TEMPORARY PAVEMENT MARKINGS SHALL MEET THE REQUIREMENTS OF AASHTO M248. EITHER TYPE N (REGULAR TRAFFIC PAINT) OR TYPE F (FAST DRY TRAFFIC PAINT) MAY BE USED. ALL PAVEMENT LINES AND MARKINGS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. IMMEDIATELY BEFORE APPLYING THE PAVEMENT PAINT TO THE PAVEMENT OR CURB, THE SURFACE SHALL BE DRY AND ENTIRELY FREE FROM DIRT, GREASE, OIL OR OTHER FOREIGN MATTER. ALL PAVEMENT MARKING LINES SHALL BE 4" SOLID WHITE.

**PAVEMENT MARKING DETAIL & SPECIFICATION**

NOT TO SCALE



**E.S. COFFIN**  
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NO.	REVISIONS	DATE

**DETAILS II**  
SCALE: AS SHOWN  
DATE: FEBRUARY 10, 2025  
DRAWN BY: TCH  
CHECKED BY: JEC

CLIENT/PROJECT: LIBBY HILL BUSINESS PARK LOT #12 ELWELL EXCAVATION  
LOCATION: TECHNOLOGY DRIVE  
TOWN: GARDNER COUNTY: KENNEBEC STATE: MAINE  
PROJ. NO. 2024-117

**C-4**



**GENERAL NOTES**

**1. AGGREGATE FOR GRAVEL BASE**

AGGREGATE FOR GRAVEL BASE SHALL BE SCREENED OR CRUSHED GRAVEL OF HARD DURABLE PARTICLES FREE FROM VEGETABLE MATTER, LUMPS OR BALLS OF CLAY AND OTHER DELETERIOUS SUBSTANCES. THE GRADATION OF THE PART THAT PASSES A 3 INCH SIEVE SHALL MEET THE GRADING REQUIREMENTS OF THE FOLLOWING TABLE:

SIEVE DESIGNATION	PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVES		
	TYPE A AGGREGATE	TYPE D AGGREGATE	STRUCTURAL FILL
2" / 3" / 4"	100 (2")	100 (3")	100 (4")
1/2 INCH	45-70	35-80	90-100
1/4 INCH	30-55	25-65	25-90
No. 40	0-20	0-30	0-30
No. 200	0-6	0-7	0-5

TYPE "A" AGGREGATE SHALL NOT CONTAIN PARTICLES WHICH WILL NOT PASS THE 2 INCH SQUARE MESH SIEVE.

TYPE "D" AGGREGATE SHALL NOT CONTAIN PARTICLES WHICH WILL NOT PASS THE 6 INCH SQUARE MESH SIEVE.

EACH LAYER AS APPLIED SHALL BE ROLLED WITH A 20 TON ROLLER. THE MATERIAL AS SPREAD SHALL BE WELL MIXED WITH NO POCKETS OF EITHER FINE OR COARSE MATERIAL. OVER SIZED STONES SHALL BE REMOVED FROM THE AGGREGATE.

EACH LAYER OF AGGREGATE SHALL BE PLACED OVER THE FULL WIDTH OF THE SECTION. AGGREGATE BASE AND SUB-BASE COURSES MAY BE PLACED UPON FROZEN SURFACES WHEN SUCH SURFACES HAVE BEEN PROPERLY CONSTRUCTED.

THE SURFACE OF EACH LAYER SHALL BE MAINTAINED DURING COMPACTION OPERATIONS IN SUCH A MANNER THAT A UNIFORM TEXTURE IS PRODUCED THROUGHOUT THE ENTIRE LAYER. THE MOISTURE CONTENT OF THE MATERIAL SHALL BE MAINTAINED AT THE PROPER PERCENT TO ATTAIN THE REQUIRED COMPACTION AND STABILITY. COMPACTION OF EACH LAYER SHALL BE CONTINUED UNTIL DENSITY OF NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557 "MODIFIED PROCTOR DENSITY" HAS BEEN ACHIEVED FOR THE FULL WIDTH AND DEPTH OF EACH LAYER AS APPLIED.

THE SURFACE TOLERANCE OF EACH BASE COURSE AS APPLIED SHALL BE 3/8 INCHES ABOVE OR BELOW THE REQUIRED TEMPLATE LINES.

**2. AGGREGATE FOR SUB-BASE**

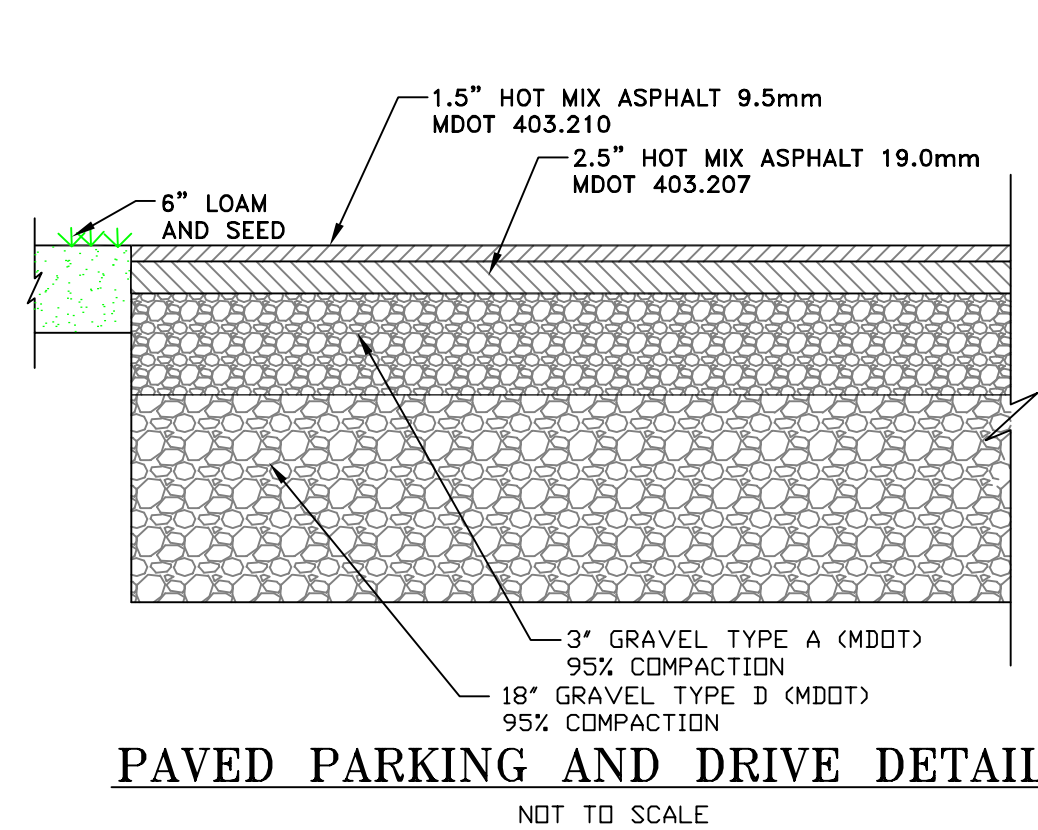
AGGREGATE FOR SUB-BASE SHALL BE TYPE "D" (MDO). IT SHALL BE FREE FROM VEGETABLE MATTER, LUMPS OR BALLS OF CLAY AND OTHER DELETERIOUS SUBSTANCES.

**3. COMMON BORROW**

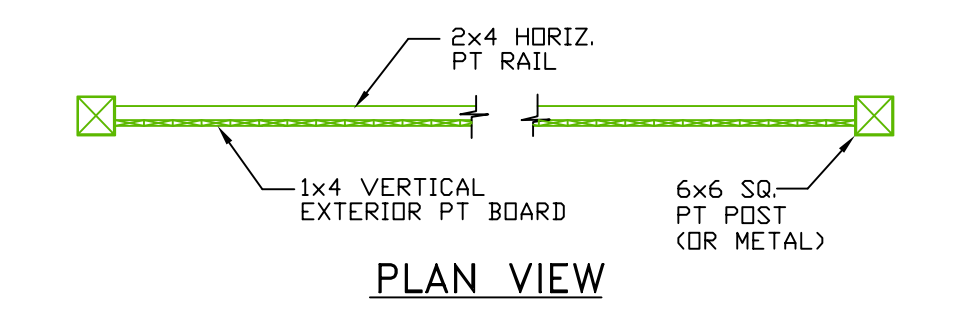
COMMON BORROW SHALL CONSIST OF EARTH, SUITABLE FOR EMBANKMENT CONSTRUCTION. IT SHALL BE FREE FROM FROZEN MATERIAL, PERISHABLE RUBBISH, PEAT AND OTHER UNSUITABLE MATERIAL.

THE MOISTURE CONTENT SHALL BE SUFFICIENT TO PROVIDE THE REQUIRED COMPACTION AND STABLE EMBANKMENT. IN NO CASE SHALL THE MOISTURE CONTENT EXCEED 4 PERCENT ABOVE OPTIMUM.

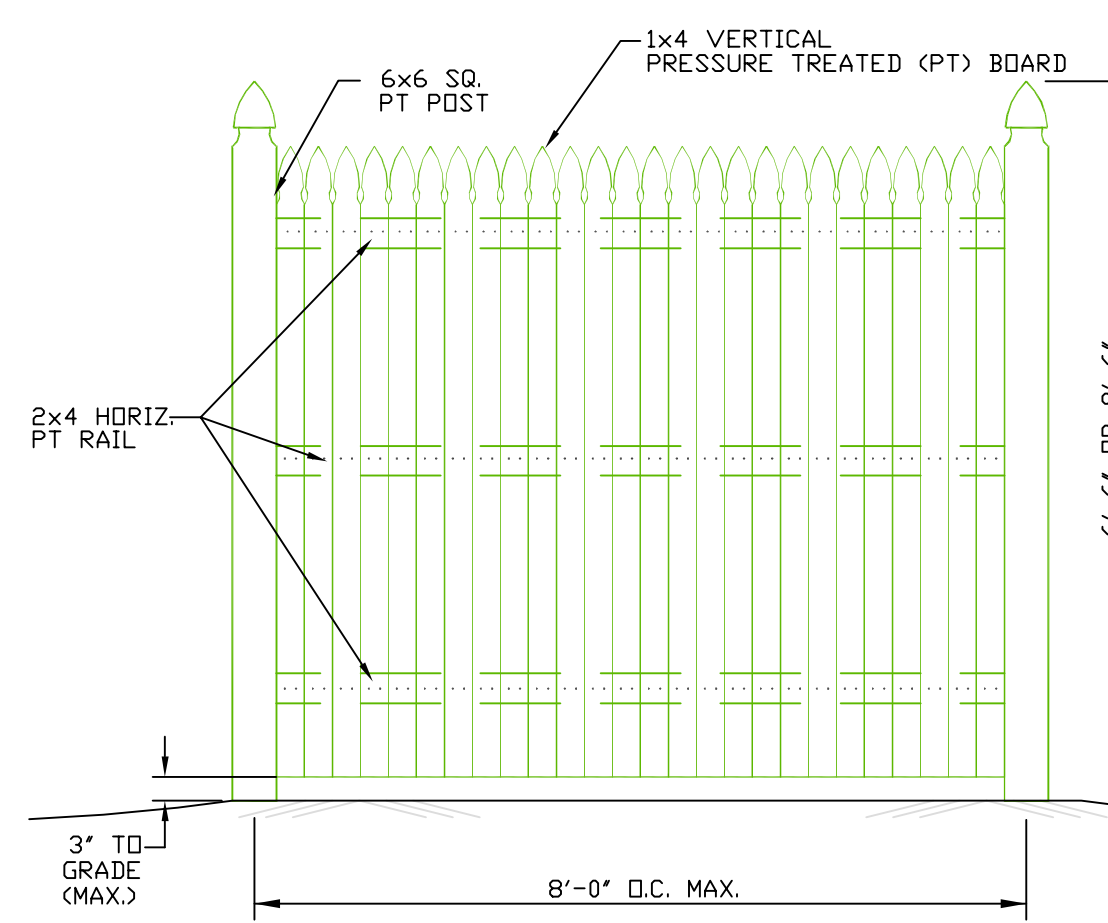
ALL COMMON BORROW AND GRAVEL AREAS TO BE COMPACTED TO 95% OF ITS MAX. DRY DENSITY AS DETERMINED BY ASTM D-1557 "MODIFIED PROCTOR DENSITY". PLACE IN 9" TO 12" LIFTS.



**PAVED PARKING AND DRIVE DETAIL**  
NOT TO SCALE



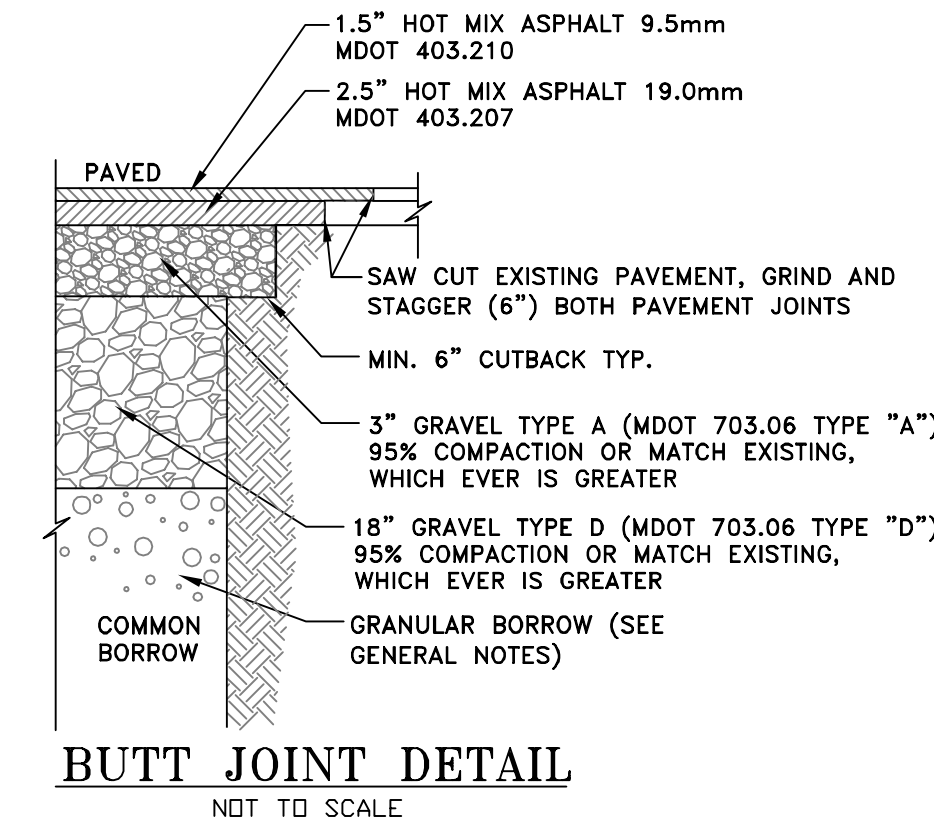
**PLAN VIEW**



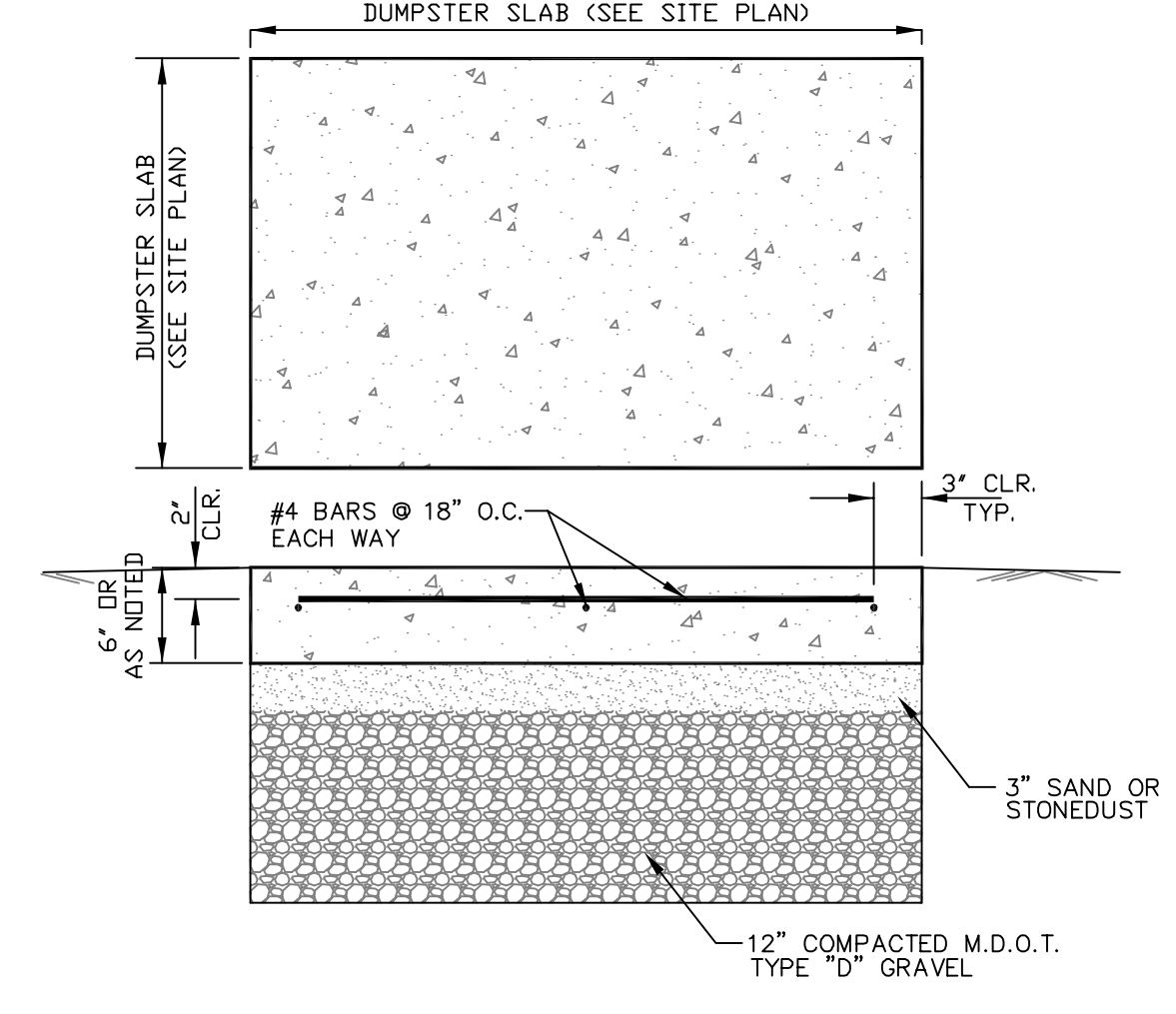
**WOOD STOCKADE FENCE DETAIL**  
NOT TO SCALE

**NOTES:**

- ALL POSTS TO BE SET 3'-6" INTO GROUND AND COMPACTED ALL AROUND.
- ANY POST SET LESS THAN 3'-0" SHALL BE SET ON 10" DIAM. CONCRETE FILLED SONDUT. USE SIMPSON STRONG-TIE POST BASE, AND SET BELOW GRADE TO HIDE CONCRETE & CONNECTOR.
- POST SET ON LEDGE SHALL BE DRILLED AND PINNED. ANCHORING METHOD TO BE APPROVED BY SITE ENGINEER.
- 2x4 PT RAILS SHALL HAVE DOWELED ENDS FOR POST CONNECTION.
- ALL GATES TO MATCH FENCE.
- OWNER TO SPECIFY PAINTING.



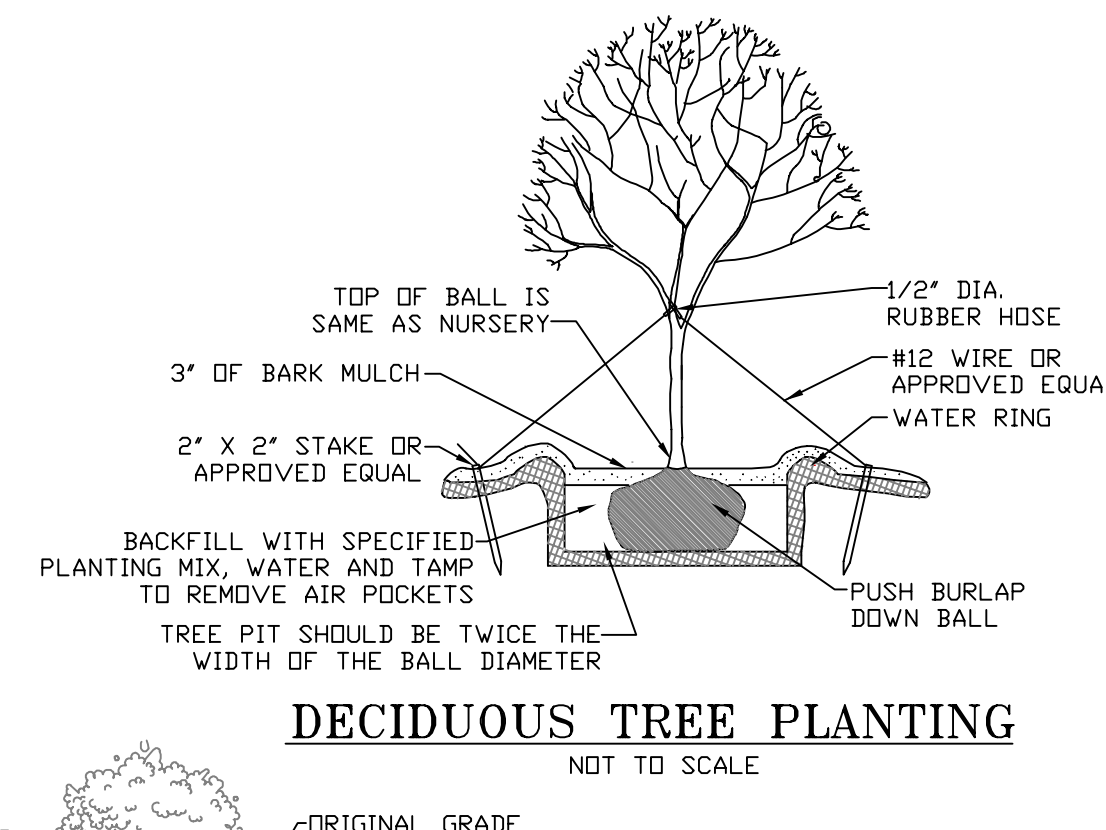
**BUTT JOINT DETAIL**  
NOT TO SCALE



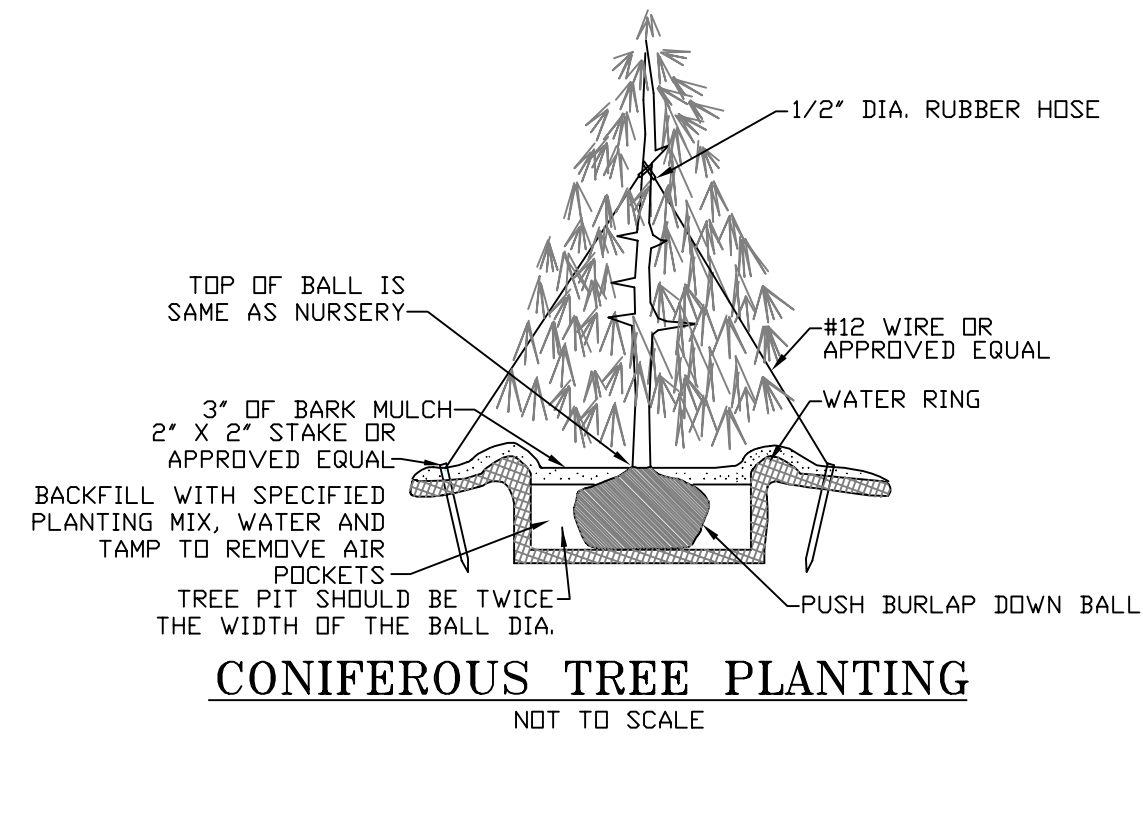
**TYPICAL DUMPSTER SLAB DETAIL**  
NOT TO SCALE

**CONCRETE SPECIFICATION:**

- 4000 P.S.I.
- 3/4" STONE
- 6% AIR ENTRAINMENT
- SLUMP = 3" ± 1"
- FINE BROOM FINISH



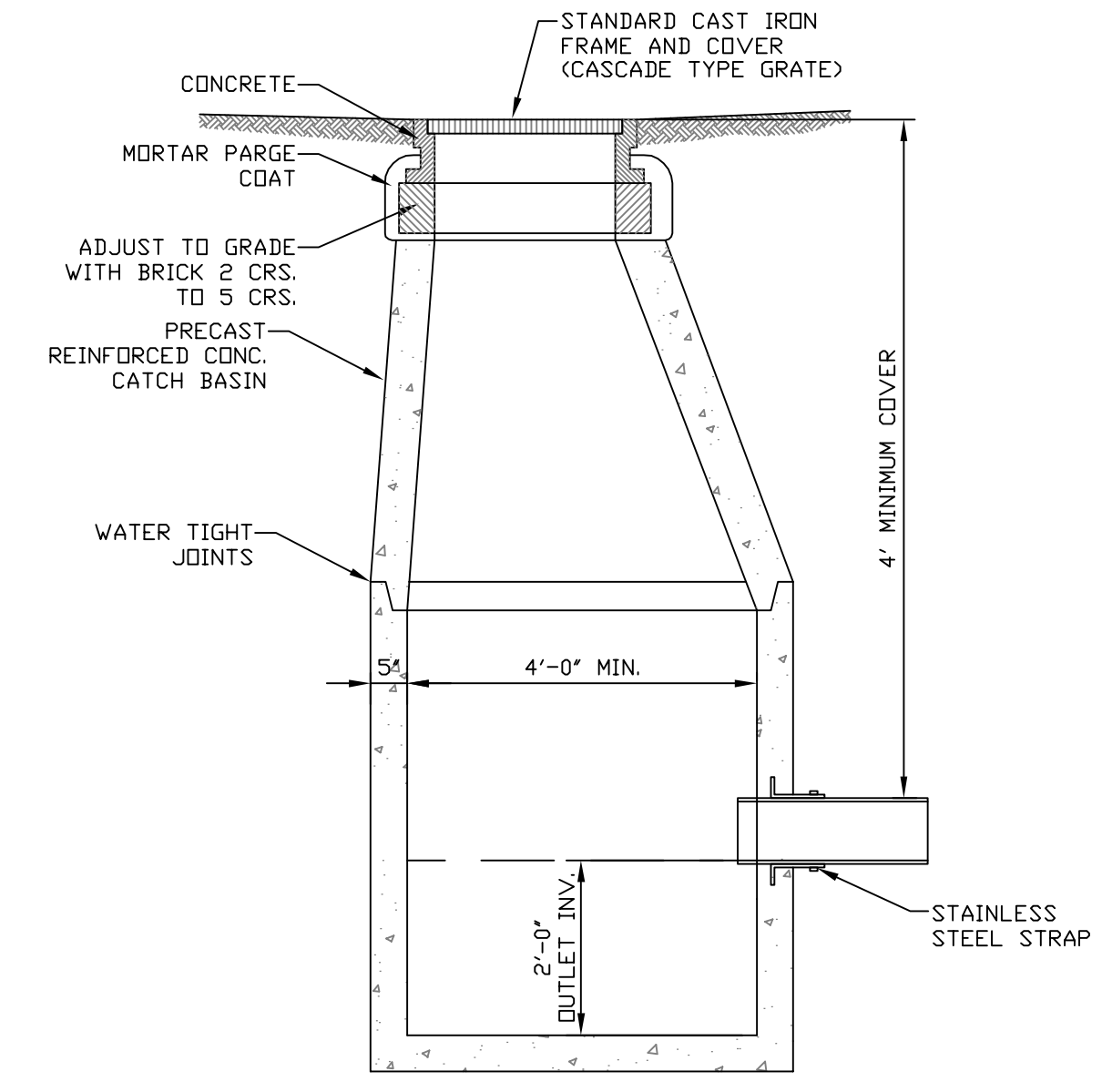
**DECIDUOUS TREE PLANTING**  
NOT TO SCALE



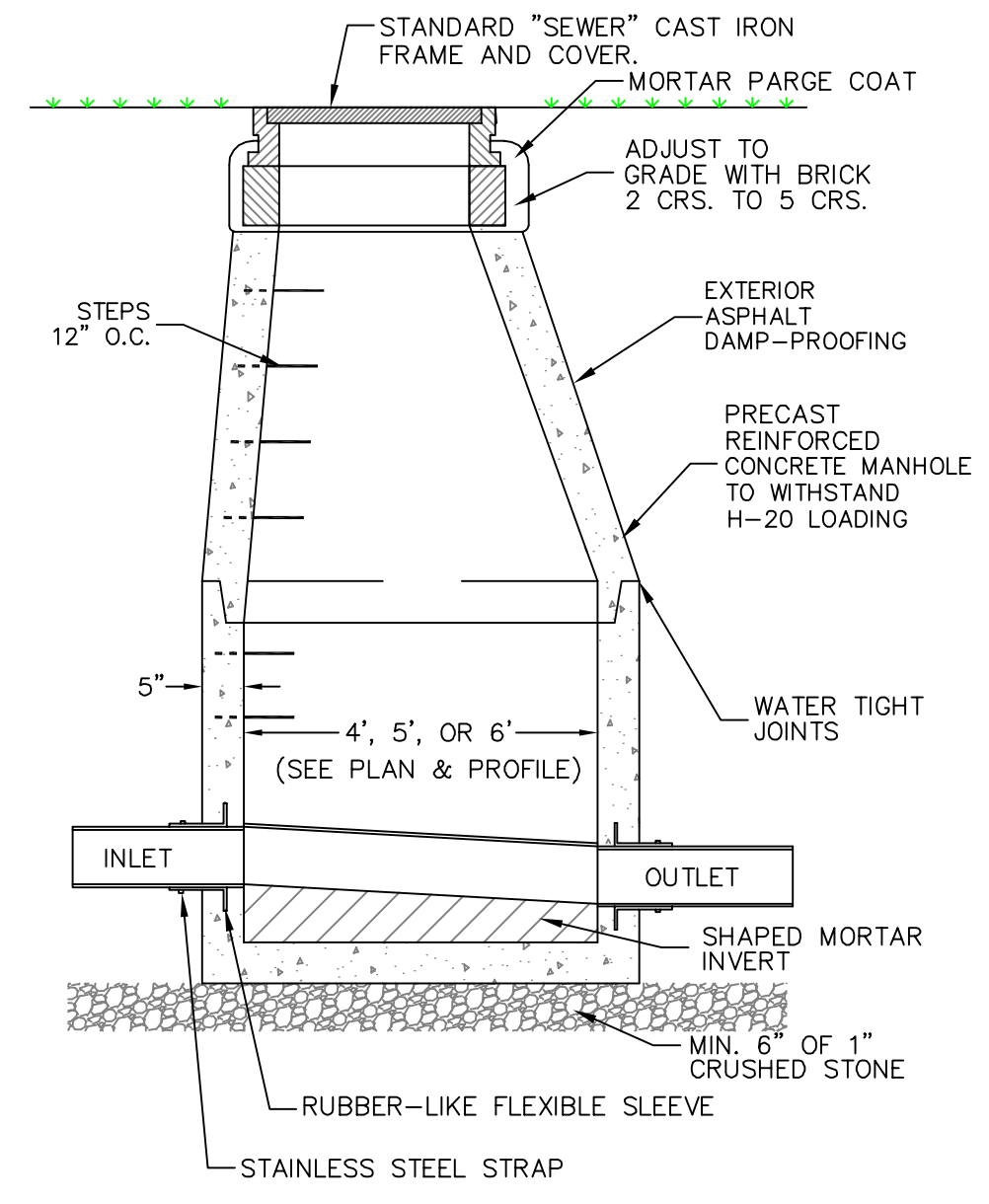
**CONIFEROUS TREE PLANTING**  
NOT TO SCALE

**SHRUB PLANTING ON SLOPES**

NOT TO SCALE



**PRECAST CATCH BASIN**  
NOT TO SCALE

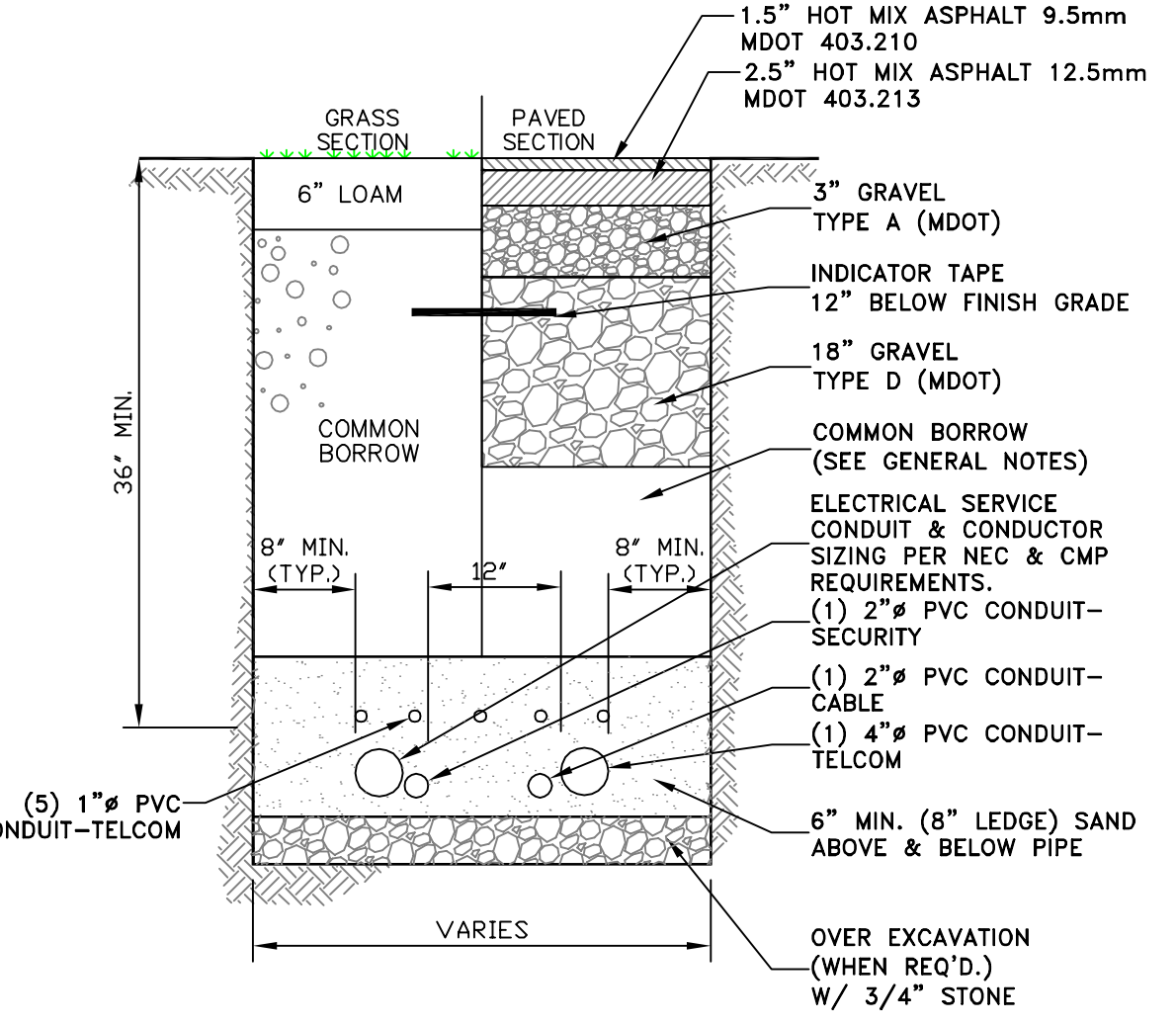


**STANDARD PRECAST MANHOLE WITH SANITARY GRAVITY LINE**  
NOT TO SCALE

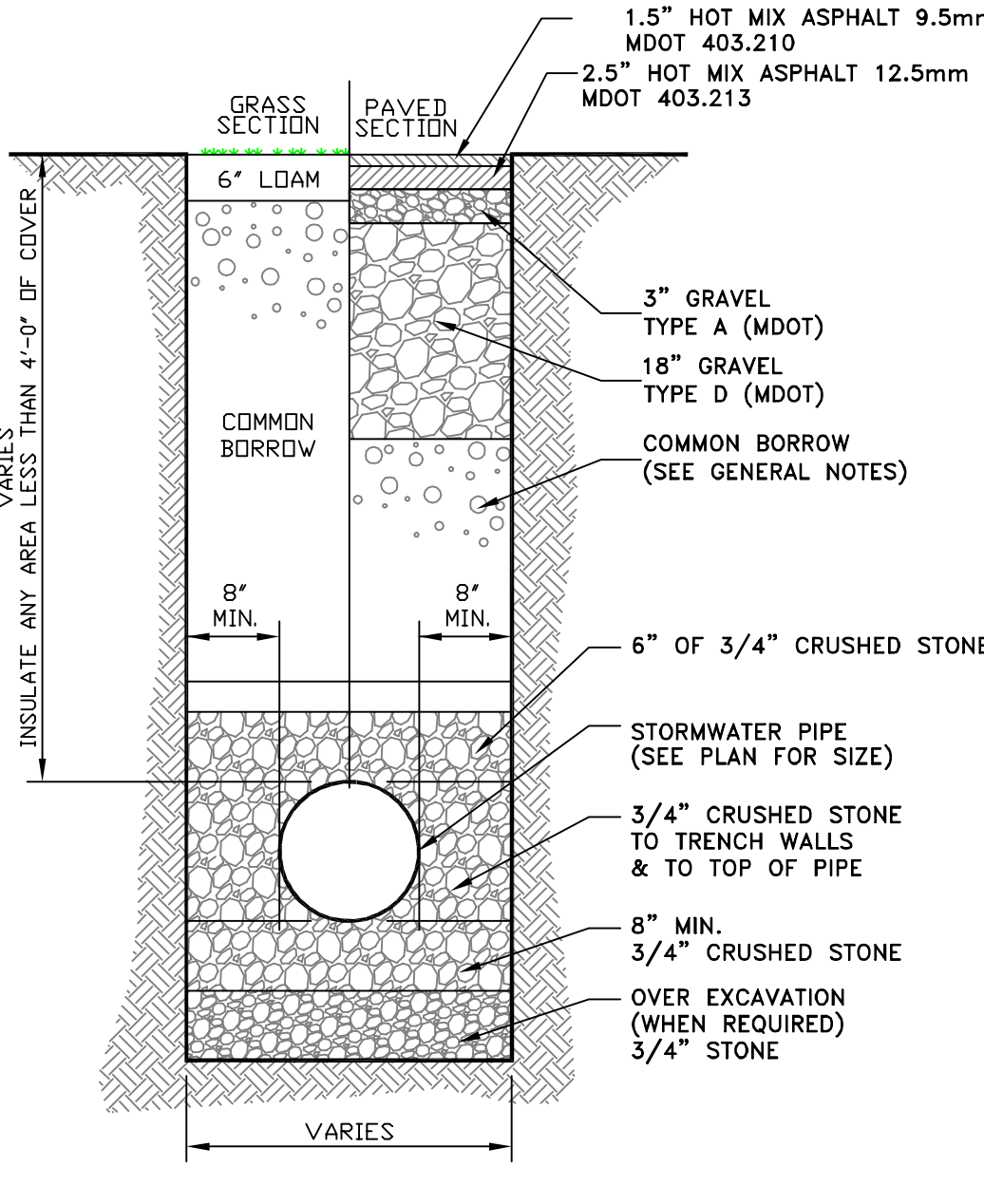
NOTE: USE FLAT TOP MANHOLE WHEN THE DIFFERENCE BETWEEN RIM AND INVERT IS LESS THAN 6'.

**TRENCH NOTES:**

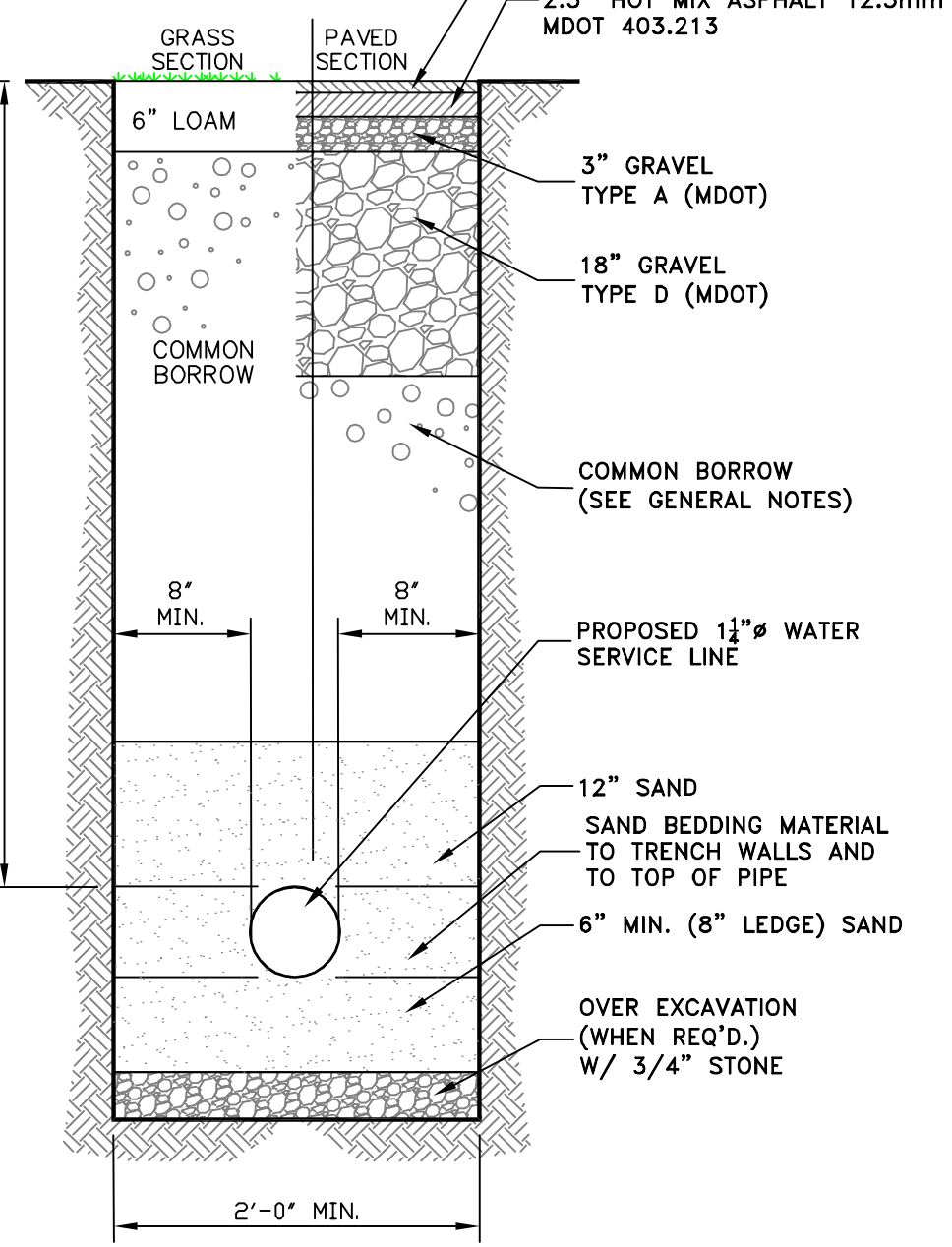
- CONTRACTOR SHALL COMPLY WITH OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION REGULATIONS PERTAINING TO THE EXCAVATION OF ALL TRENCHES. CONTRACTOR SHALL ALLOW FOR PAYMENT OF ADDITIONAL EXCAVATION, TRENCH BOXES AND BACKFILL WITH REGARD TO COMPLYING WITH ALL OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION STANDARDS.
- ALL COMMON BORROW AND GRAVEL AREAS TO BE COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557 "MODIFIED PROCTOR DENSITY". PLACE IN 9" TO 12" LIFTS.



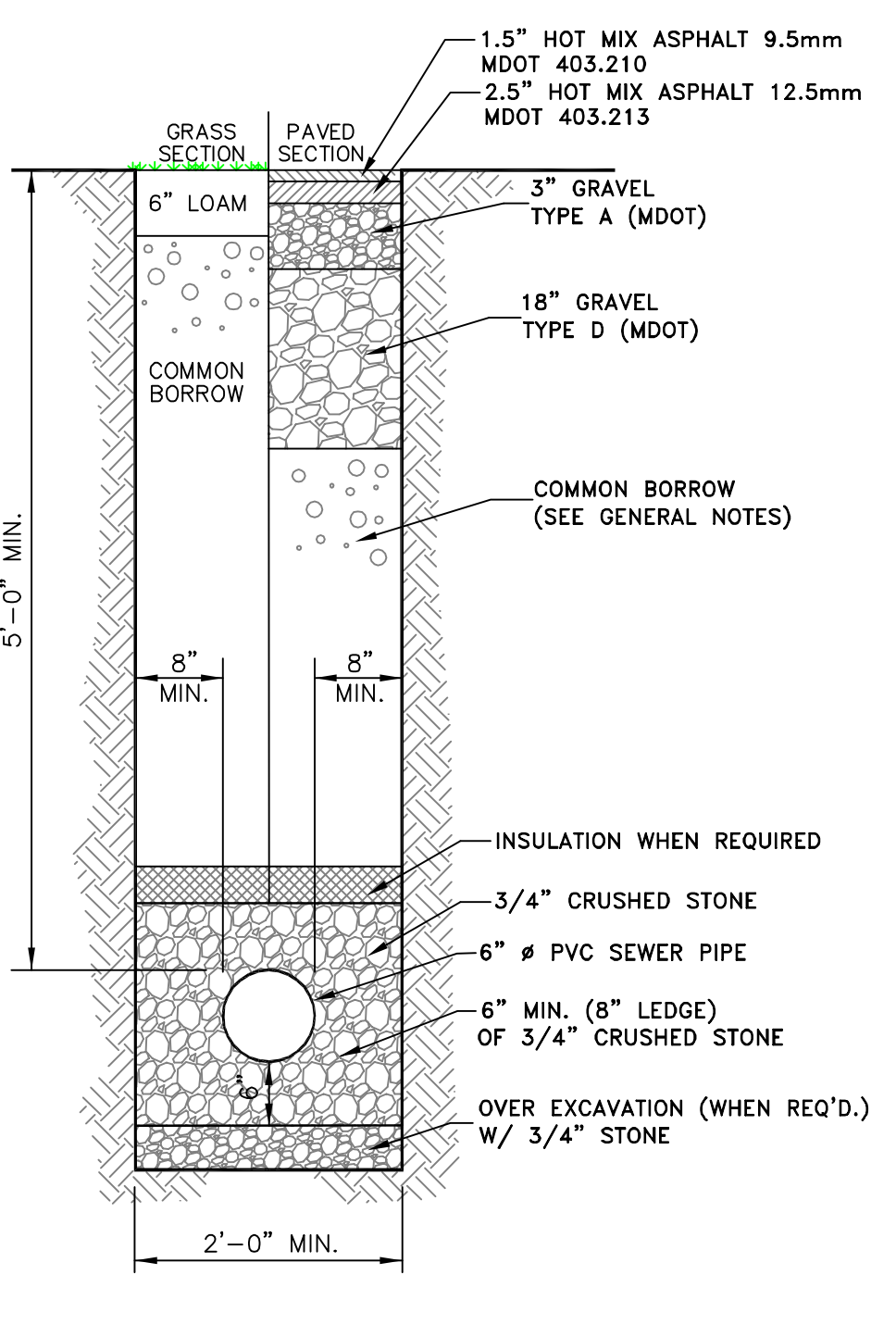
**TYPICAL ELECTRICAL/SITE LIGHTING TRENCH SECTION**  
NOT TO SCALE



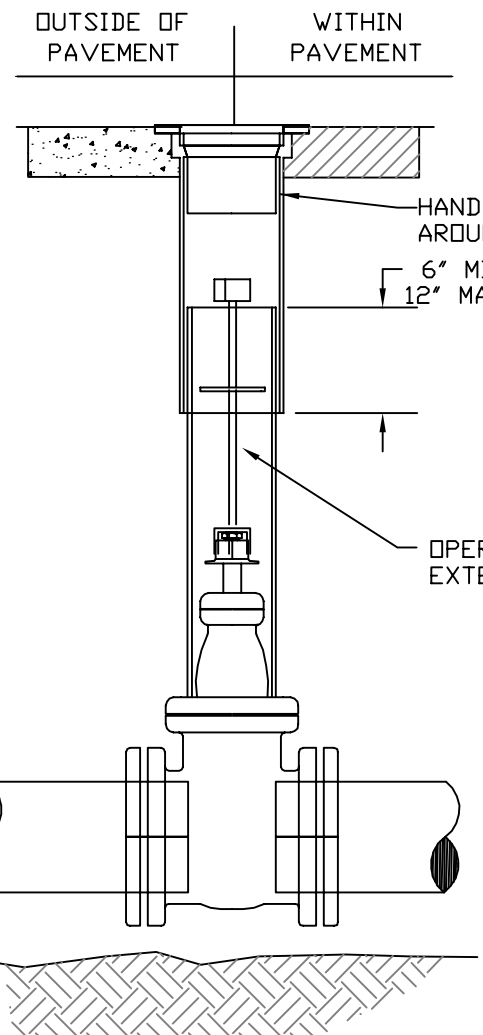
**TYPICAL STORMWATER TRENCH SECTION**  
NOT TO SCALE



**WATER SERVICE TRENCH SECTION**  
NOT TO SCALE



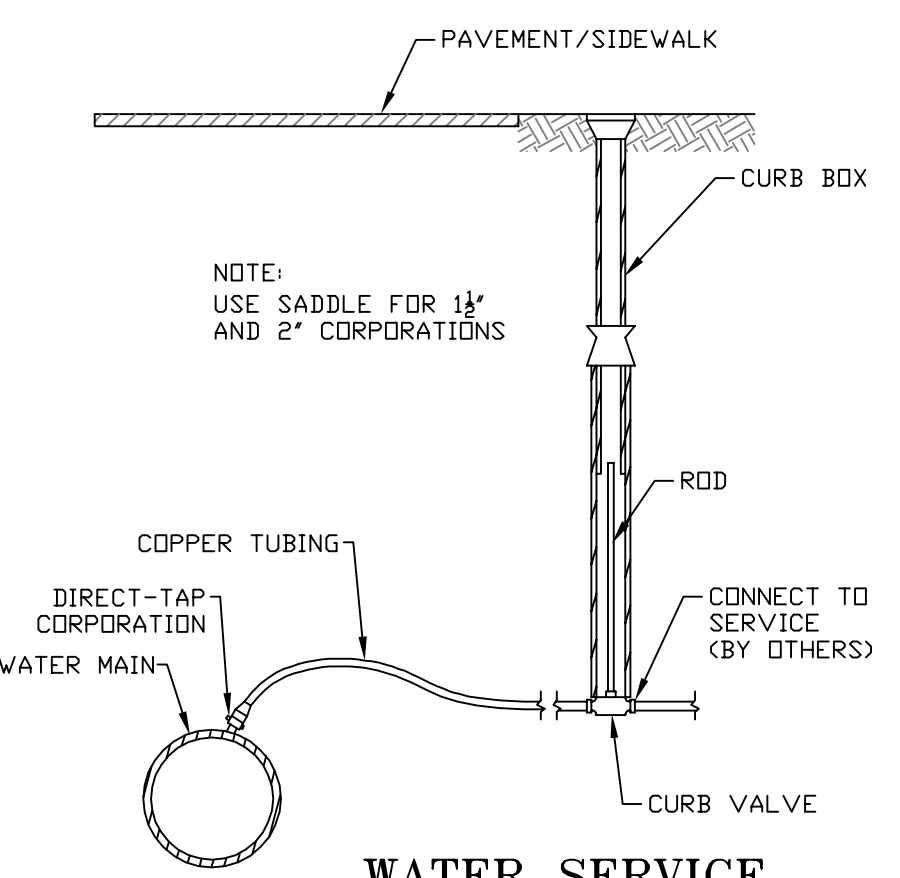
**TYPICAL SANITARY TRENCH SECTION**  
NOT TO SCALE



**GATE VALVE DETAIL**

NOT TO SCALE

- NOTES:**
- VALVE BOX NOT TO REST ON OPERATING ASSEMBLY.
  - A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE WITH AN OPERATING NUT LOCATED IN EXCESS OF 4 FEET BELOW THE TOP OF THE VALVE BOX. THIS EXTENSION SHALL BE SUFFICIENT LENGTH TO ENSURE THAT ITS TOP IS WITHIN 4 FEET OF THE VALVE BOX LID.



**WATER SERVICE**  
NOT TO SCALE

STATE OF MAINE  
JAMES E. COFFIN  
8500  
LICENSED PROFESSIONAL ENGINEER  
James Coffin

**E.S. COFFIN**  
ENGINEERING & SURVEYING, INC.  
432 Corp Road, P.O. Box 4687, Augusta, Maine 04330  
Ph: (207) 625-9473 Fax: (207) 625-9976 Toll Free: 1-800-248-9473

NO.	REVISIONS	DATE

**DETAILS III**

SCALE: AS SHOWN

DATE: FEBRUARY 10, 2025

DRAWN BY: TCH  
CHECKED BY: JEC

CLIENT/PROJECT: LIBBY HILL BUSINESS PARK LOT #12 ELWELL EXCAVATION

LOCATION: TECHNOLOGY DRIVE  
TOWN: GARDNER COUNTY: KENNEBEC STATE: MAINE

PROJ. NO. 2024-117

**C-5**



**MATERIAL SPECIFICATIONS**

INSTALL 3/4"Ø DRAINAGE STONE AND WALL BACKFILL SOIL BEHIND THE WALL. COMPACT WALL BACKFILL IN LIFTS NOT EXCEEDING 18".

SWEEP OFF TOP OF BLOCKS AND GRIND SMOOTH ANY ROUGH EDGES ON THE BACK OF THE BLOCKS TO AVOID DAMAGE TO GEOGRID.

CONTRACTOR SHALL TAKE PRECAUTIONS DURING THE INSTALLATION AND COMPACTION OF THE DRAINAGE AND BACKFILL MATERIAL TO ENSURE THAT WALL BACKFILL DOES NOT CONTAMINATE THE DRAINAGE STONE DIRECTLY BEHIND THE WALL. REMOVE AND REPLACE ANY AREAS OF DRAINAGE MATERIAL THAT INADVERTENTLY BECOMES CONTAMINATED DURING THE BACKFILLING OPERATION.

CONTINUE PLACEMENT OF BLOCK WALL, DRAINAGE AGGREGATE AND WALL BACKFILL SOIL TO FULL HEIGHT OF WALL MAINTAINING HORIZONTAL AND VERTICAL ALIGNMENT DURING CONSTRUCTION. USE SMALL VIBRATORY PLATE COMPACTOR WITHIN 3' OF THE BACK OF THE WALL.

3/4"Ø DRAINAGE STONE SHALL BE CLEAN ANGULAR CRUSHED STONE MEETING THE FOLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH ASTM D422.

SIEVE SIZE	PERCENT PASSING
1"	100
3/8"	90 - 100
No. 4	20 - 55
No. 8	0 - 10
	0 - 5

WALL BACKFILL SHALL BE A FREE DRAINING, WELL GRADED GRANULAR MATERIAL MEETING THE FOLLOWING GRADATION (REFERENCE MDT 703.22, GRAVEL BORROW).

SIEVE SIZE	PERCENT PASSING
4"	100
1/4"	25 - 70
No. 40	0 - 30
No. 200	0 - 5

BLOCKS SHALL BE 28", 41" AND 60" REDI-ROCK, UNDER LICENSE OF REDI-ROCK INTERNATIONAL, VERTICAL BATTER, COLOR AND FINISH TO BE SELECTED BY OWNER BASED ON SAMPLES PROVIDED BY MANUFACTURER. SETBACK SHALL BE 0.01 INCHES PER BLOCK.

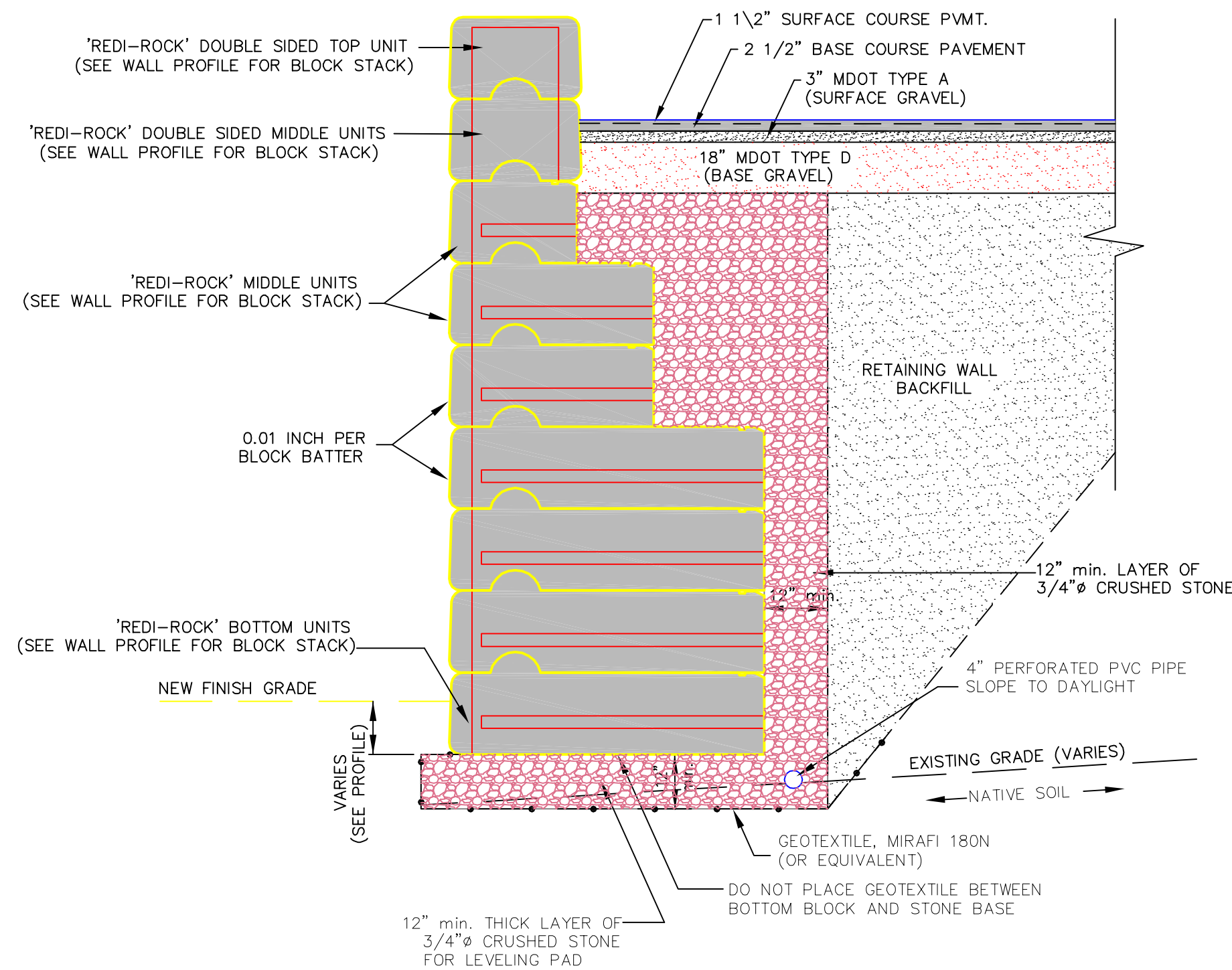
- THE FOLLOWING ASSUMPTIONS WERE USED IN THE DESIGN:
- A) SLOPE AT TOP OF WALL IS LEVEL.
  - B) MINIMUM DESIGN EMBEDMENT AT WALL FACE VARIES
  - C) SOIL PROPERTIES:  
FOUNDATION SOIL: NATIVE, UNIT WEIGHT = 125 pcf, phi = 30°  
RETAINED SOIL: NATIVE, UNIT WEIGHT = 130 pcf, phi = 34°
  - D) LIVE LOAD SURCHARGE = 250 psf
  - E) GROUNDWATER AT OR BELOW BASE OF WALL.
  - F) SEISMIC DESIGN COEFFICIENT = 0.08
  - G) MAXIMUM CONTACT PRESSURE = 3,500 psf

GEOTEXTILE SHALL CONSIST OF MIRAFI 180N OR EQUIVALENT.

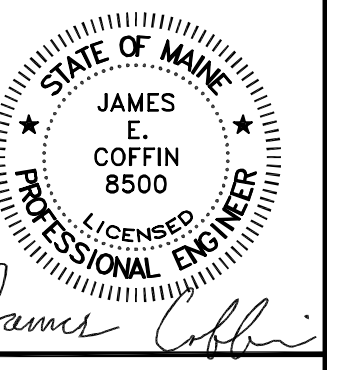
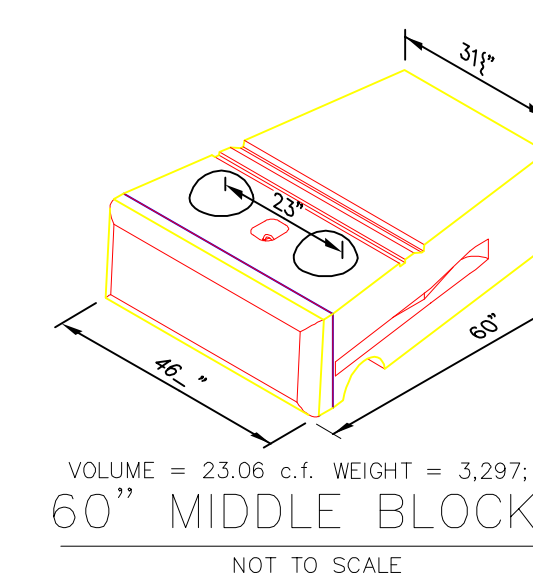
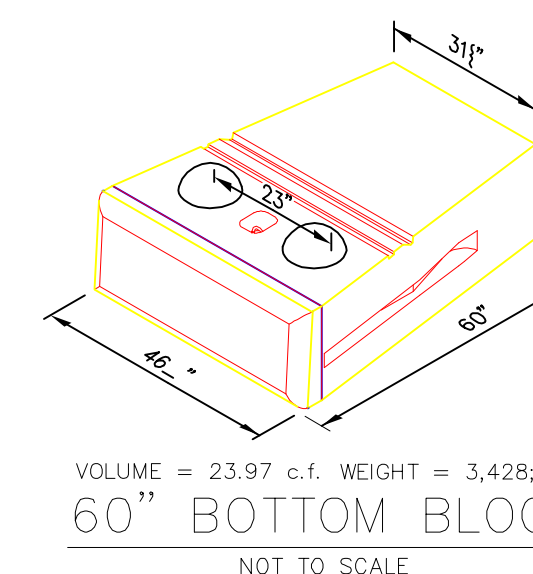
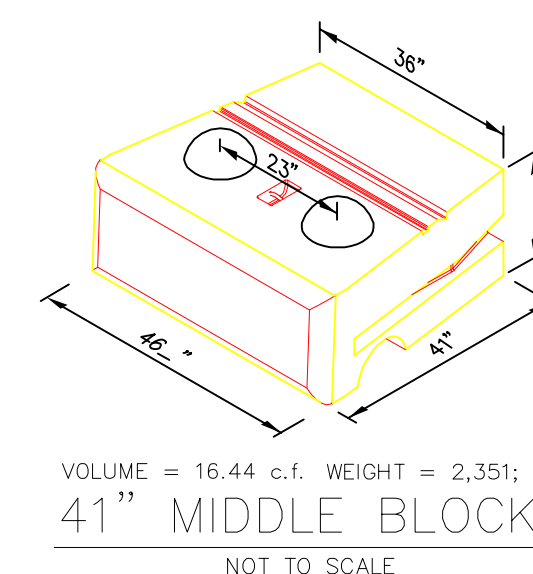
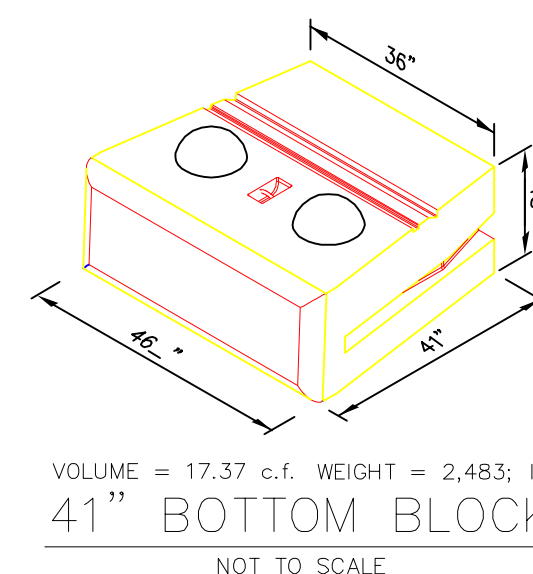
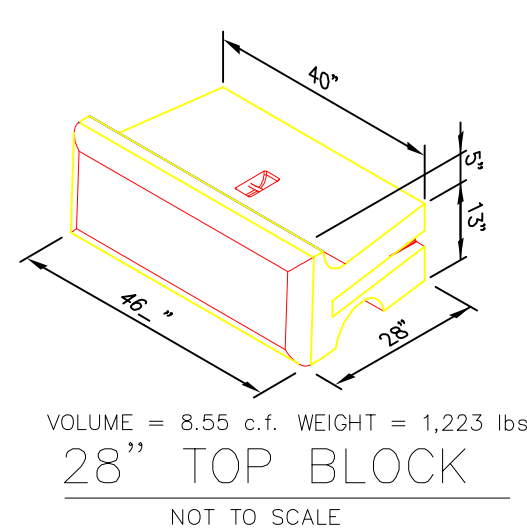
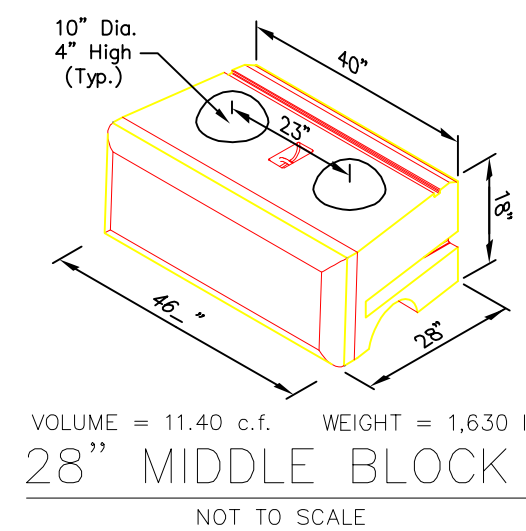
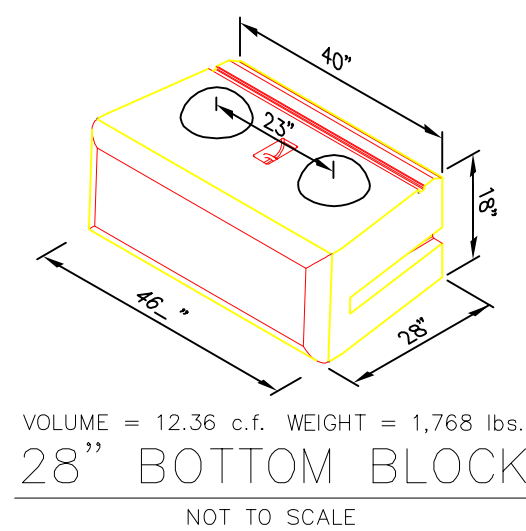
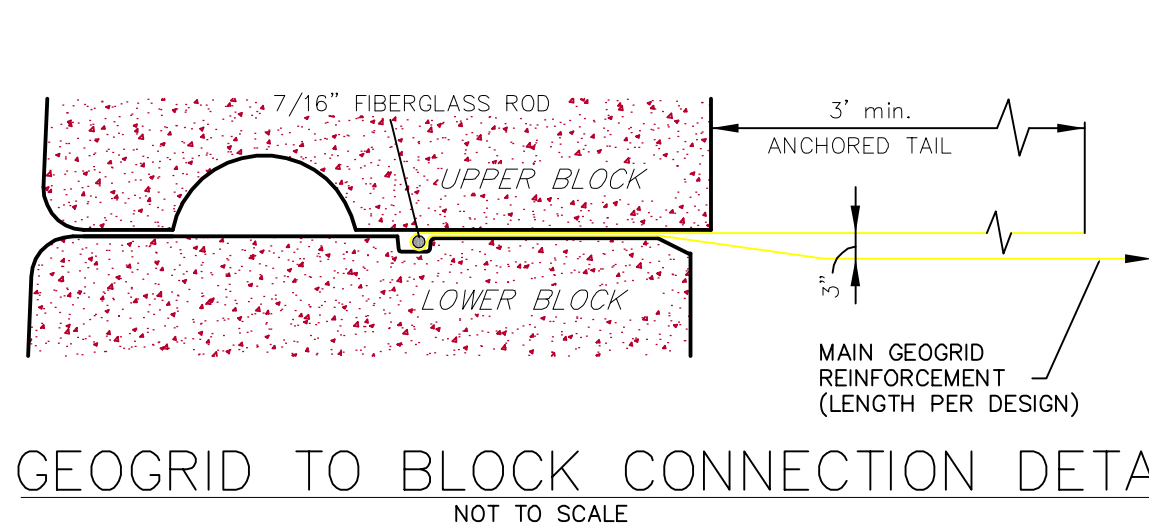
CONCRETE FOR WALL BASE FOOTINGS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000psi AND BE AIR ENTRAINED AS REQUIRED TO PROVIDE AN AIR CONTENT OF 5% (±1%).

**GENERAL NOTES**

- 1) IT IS THE RESPONSIBILITY OF THE OWNER, CONTRACTOR OR THEIR RESPECTIVE REPRESENTATIVES TO ENSURE THAT CONSTRUCTION OF THE WALL AND MATERIALS USED IN THE CONSTRUCTION OF THE WALL ARE IN ACCORDANCE WITH THESE SPECIFICATIONS AND/OR THE CONTRACT SPECIFICATIONS WHICH EVER ARE MORE STRINGENT.
- 2) E.S. COFFIN ENGINEERING & SURVEYING ACCEPTS NO RESPONSIBILITY NOR LIABILITY IN THE DETERMINATION OF THE ADEQUACY OF SITE MATERIALS AND WALL LAYOUT.
- 3) PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL VERIFY THAT ALL ELEVATIONS AND ASSUMED SITE CONDITIONS SHOWN ON THESE DRAWINGS ARE ACCURATE TO THE GIVEN SITE CONDITIONS. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF S.G.S. PRIOR TO THE START OF CONSTRUCTION.
- 4) THE WALL HAS BEEN DESIGNED ON THE ASSUMPTION THAT THE WALL BACKFILL MATERIAL SHALL BE FREE OF SUBSURFACE DRAINAGE OR WATER (SEEPAGE). PERMANENT SUBSURFACE WATER (SEEPAGE) COLLECTION AND DIVERSION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR OWNERS ENGINEER (SEE RECOMMENDED TYPICAL DETAILS).
- 5) DURING CONSTRUCTION BEFORE RAIN EVENTS, BACKFILL SURFACE SHALL BE GRADED AWAY FROM THE WALL FACE AND A TEMPORARY SOIL BERM CONSTRUCTED NEAR THE TOP CREST TO PREVENT SURFACE WATER RUNOFF FROM OVERTOPPING THE WALL. PROVIDE PRECAUTIONS AS NECESSARY TO ENSURE THAT SURFACE RUN OFF FROM ADJACENT AREAS DOES NOT ENTER THE WALL CONSTRUCTION SITE. DURING CONSTRUCTION BEFORE RAIN EVENTS, BACKFILL SURFACE SHALL BE SMOOTHED OUT TO PREVENT PONDING OF WATER AND SATURATION OF SOIL.
- 6) THE REDI-ROCK WALL SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER AND THE INFORMATION FURNISHED ON THESE DRAWINGS.
- 7) FOUNDATION EXCAVATION SHALL EXTEND TO COMPETENT SOIL. (UNLESS NOTED OTHERWISE) ALL EXISTING TOPSOIL, LOOSE MATERIAL, FILL, ORGANIC SOIL AND OTHER SOFT OR UNSTABLE FOUNDATION SOILS SHALL BE REMOVED FROM THE AREA TO BE OCCUPIED BY THE WALL AND REPLACED WITH 3/4"Ø CRUSHED STONE. REMOVE UNSUITABLE FOUNDATION SOILS TO THE LATERAL LIMITS EXTENDING BEYOND THE WALL A DISTANCE EQUAL TO THE DEPTH OF FILL REQUIRED BELOW THE WALL PLUS (1) ONE FOOT.
- 8) UPON COMPLETION OF THE EXCAVATION, THE NATURAL SUBGRADE SHALL BE COMPACTED USING A VIBRATORY ROLLER AND MAKING A MINIMUM OF 5 PASSES.
- 9) INSTALL A 12" (MINIMUM THICK) LAYER OF COMPACTED [ ] CRUSHED STONE FOR BLOCK WALL LEVELING PAD OR CONCRETE FOOTING. EXTEND LEVELING PAD 6" HORIZONTALLY IN ALL DIRECTIONS BEYOND LIMITS OF THE PRECAST BLOCK WALL.
- 10) INSTALL THE BASE COURSE OF BLOCKS ON THE PREPARED FOUNDATION LEVELING PAD. LEVELING PAD MATERIAL VARIES ACCORDING TO SECTION AND PLAN/PROFILE. ENSURE THAT THE BASE COURSE IS LEVEL SIDE TO SIDE AND PLUMB. ADJUST BLOCKS AS REQUIRED TO PROVIDE A STRAIGHT AND LEVEL BASE COURSE.



**TYPICAL CROSS SECTION**  
NOT TO SCALE



NO.	REVISIONS	DATE

SHEET TITLE:	DETAILS IV
	SCALE: AS SHOWN
DATE:	FEBRUARY 10, 2025
DRAWN BY:	TCH
CHECKED BY:	JEC

CLIENT/PROJECT:	LIBBY HILL BUSINESS PARK LOT #12 ELWELL EXCAVATION
LOCATION:	TECHNOLOGY DRIVE
TOWN:	GARDNER
COUNTY:	KENNEBEC
STATE:	MAINE

PROJ. NO. 2024-117  
**C-6**