

SITE DESIGN PLANS

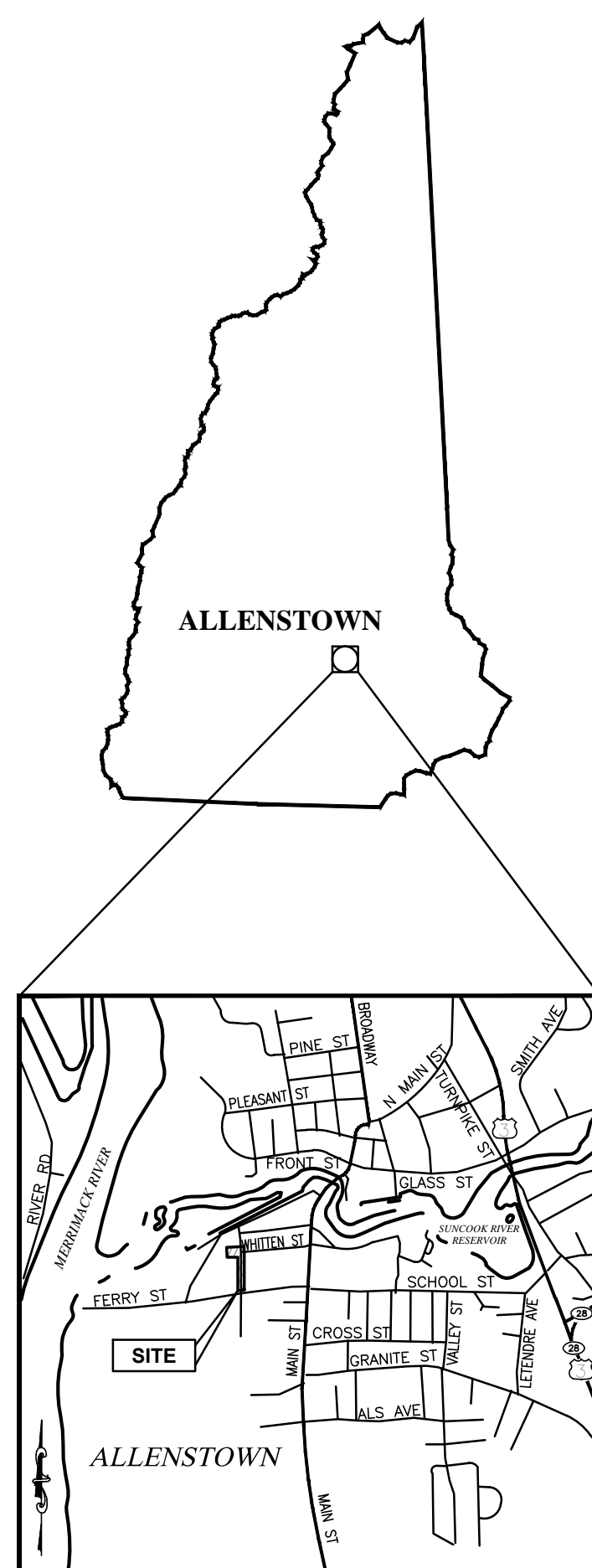
FOR THE

REYNOLDS AVENUE AREA DRAINAGE & ROADWAY IMPROVEMENTS

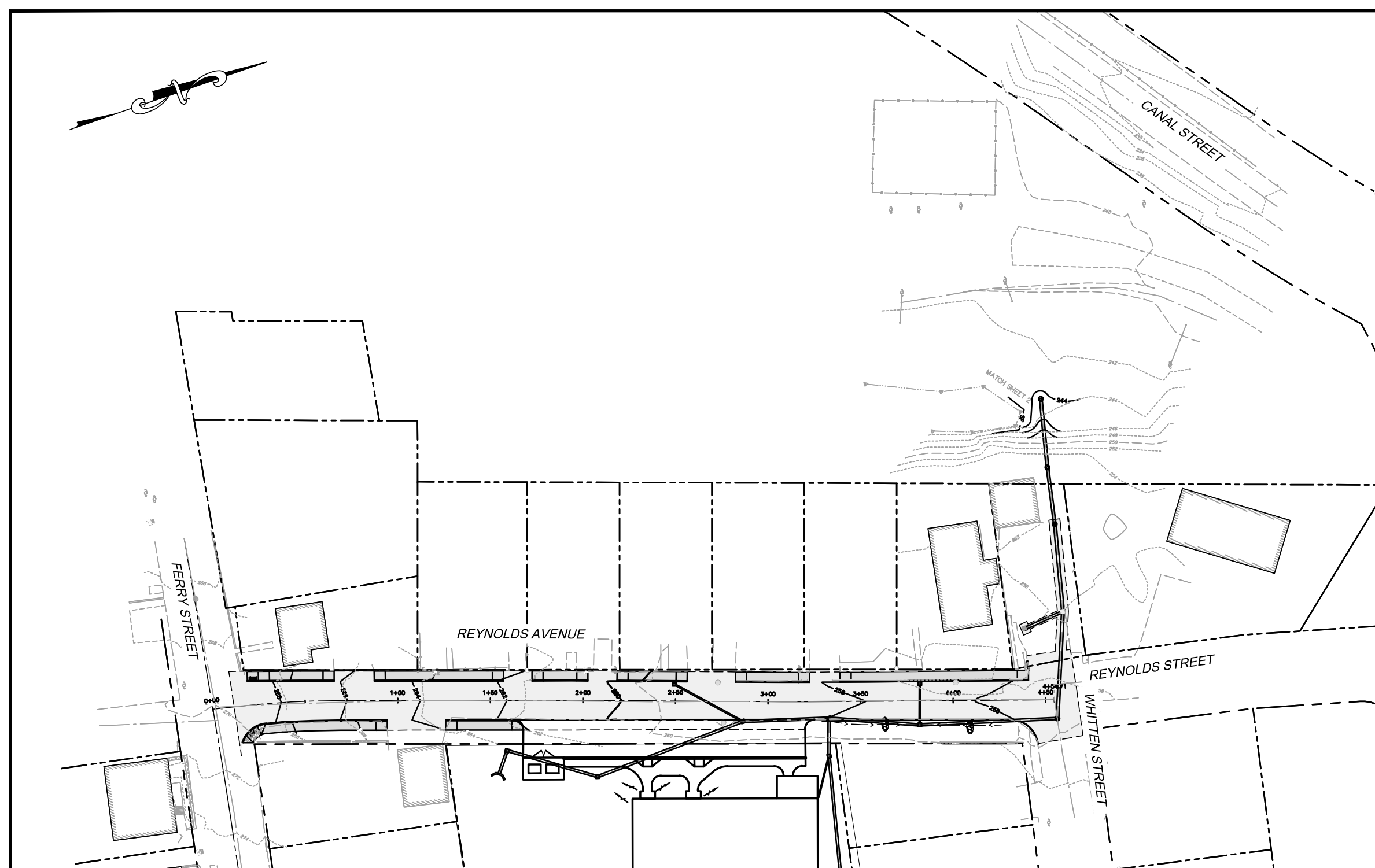
REYNOLDS AVENUE ALLENSTOWN, NH



SEPTEMBER 18, 2015



LOCATION MAP
NOT TO SCALE



OVERALL SITE VIEW

SCALE: 1" = 60'

TOWN OF ALLENSTOWN
MERRIMACK COUNTY

LIST OF DRAWINGS

DWG #	SHEET#	TITLE
C1	1	TITLE SHEET
C2	2	GENERAL NOTES & LEGEND
C3	3	EXISTING CONDITIONS PLAN - 1
C4	4	EXISTING CONDITIONS PLAN - 2
C5	5	PROPOSED SITE & UTILITY PLAN
C6	6	ROADWAY PLAN & PROFILE
C7	7	ROADWAY CROSS SECTIONS
C8	8	EROSION CONTROL NOTES & DETAILS
C9	9	CONSTRUCTION DETAILS - 1
C10	10	CONSTRUCTION DETAILS - 2

UTILITY CONTACTS:

WATER:

PEMBROKE WATER WORKS
346 PEMBROKE ST. PEMBROKE, NH 03275
CONTACT: MATTHEW GAGNE
(603) 485-3362

SEWER:

ALLENSTOWN SEWER DEPARTMENT
35 CANAL ST. ALLENSTOWN, NH 03275
CONTACT: DANA CLEMENT
(603) 485-5600

ELECTRIC:

EVERSOURCE
8 EAST POINT DRIVE
HOOKSETT, NH 03106
CONTACT: DAN PARISEAU
(603) 634-2064

TELEPHONE:

FAIRPOINT COMMUNICATIONS
CONTACT: WAYNE HACKETT
(603) 494-4079

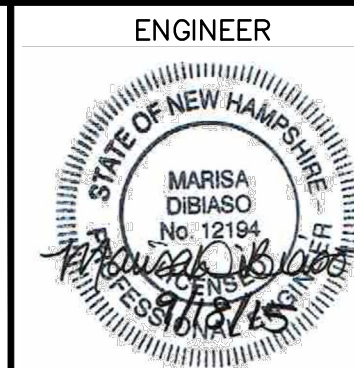
GAS:

LIBERTY UTILITIES
CONTACT: ANDY MORGAN
130 ELM ST. MANCHESTER, NH
(603) 782-2321

CABLE:

COMCAST
CONTACT: TOM REED
(603) 889-6718

ISSUED FOR BID



REV.	DESCRIPTION	DATE

THIS DOCUMENT IS PREPARED AS AN INSTRUMENT OF SERVICE AND IS NOT TO BE USED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION OF HTA.

DESIGNED BY: MAD
CHECKED BY: WRD
DRAWN BY: MAD
DATE: SEPTEMBER 18, 2015
SCALE: AS SHOWN

CLIENT: TOWN OF ALLENSTOWN
16 SCHOOL STREET
ALLENSTOWN, NH 03275

PROJECT: REYNOLDS AVENUE AREA DRAINAGE & ROADWAY IMPROVEMENTS
ALLENSTOWN, NH

TITLE SHEET
C1

PROJECT NO. 562803
SHEET 1 OF 10

GENERAL NOTES:

1. DELINEATED WETLANDS ARE SHOWN ON THE PLAN. NO WORK SHALL OCCUR IN THE WETLANDS.
2. THE CONTRACTOR SHALL VERIFY AND DETERMINE THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS PRIOR TO THE START OF ANY CONSTRUCTION. THE CONTRACTOR SHALL LOCATE THE UTILITIES SHOWN AND THE POSSIBLE EXISTENCE OF OTHER UNDERGROUND UTILITIES BY PROVIDING OBSERVATION TEST PITS. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT "DIGSAFE" (888) 344-7233, PEMBROKE WATER WORKS AND THE TOWN OF ALLENSTOWN AT LEAST 72 HOURS BEFORE DIGGING.
3. THIS PROJECT IS TO BE CONSTRUCTED TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE STANDARDS OF THE TOWN OF ALLENSTOWN, AND THE STANDARDS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
4. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, FEES, TEMPORARY UTILITIES AND COORDINATION WITH ALL AGENCIES IN OBTAINING ACCESS TO THE SITE AND PERFORMING ALL WORK REQUIRED FOR THIS PROJECT.
5. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
6. CONTRACTOR SHALL PROTECT AND MAINTAIN EXISTING BENCHMARKS AND BOUNDS. ALL BENCHMARKS AND BOUNDS DISTURBED BY THE CONTRACTOR SHALL BE RE-ESTABLISHED BY A NEW HAMPSHIRE REGISTERED LAND SURVEYOR AT NO EXPENSE TO THE OWNER.
7. THE CONTRACTOR SHALL PERFORM ALL THE CLEARING AND GRUBBING NECESSARY WITHIN THE CONSTRUCTION AREA, LIMITING THE AMOUNT OF CLEARING AND GRUBBING TO THE EXTENT POSSIBLE.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ANY EXCAVATION SAFEGUARDS, NECESSARY BARRICADES, POLICE DETAILS, ETC., FOR TRAFFIC CONTROL AND SITE SAFETY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL WORK IS DONE IN ACCORDANCE WITH OSHA REQUIREMENTS.
9. ALL DEWATERING MUST BE EXECUTED IN ACCORDANCE WITH THE PLANS AND NHDOT STANDARD SPECIFICATIONS DIVISION 600. REGULATIONS PROHIBIT DISCHARGING GROUNDWATER TO A SANITARY OR COMBINED SEWER WITHOUT PERMISSION.
10. WHEN PREPARING THE EXISTING SITE FOR THE PROPOSED DEVELOPMENT, ALL MATERIALS REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL GOVERNING AGENCIES.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR THE CONDITIONS OF THE SITE.
12. ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS WITHIN THE LIMIT OF WORK.
13. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE LATEST EDITIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AMERICANS WITH DISABILITIES (ADA) ACT, AND STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS.
14. THE CONTRACTOR SHALL SUBMIT AS-BUILT PLANS ON REPRODUCIBLE MYLAR AND IN DIGITAL FORMAT (AUTOCAD DWG FORMAT) ON CD TO THE OWNER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A REGISTERED NEW HAMPSHIRE LAND SURVEYOR OR PROFESSIONAL ENGINEER. AN ELECTRONIC FILE OF THE SITE LAYOUT SHALL BE SUBMITTED TO THE TOWN OF ALLENSTOWN'S GIS DEPARTMENT.
15. COORDINATE ALL WORK WITH THE ADJACENT COMMUNITY CENTER PROJECT.
16. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS (PIPE, CASTINGS, STRUCTURES, ETC.) TO INSPECTING ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND INSTALLATION.
17. ALL TRAFFIC SIGNAGE SHALL SHALL MEET AND BE AND INSTALLED PER SPECIFICATIONS OF THE MUTCD.
18. ALL SIGNAGE SHALL BE SUBMITTED TO TOWN OF ALLENSTOWN FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
19. CONTRACTOR TO OBTAIN AN NPDES CONSTRUCTION GENERAL PERMIT (CGP) AND COMPLY WITH PERMIT MEASURE SUCH AS IMPLEMENTATION OF MEASURES TO MEET TSS REQUIREMENT. A REMEDIATION GENERAL PERMIT WILL BE OBTAINED BY OTHERS.
20. ALL CURBING SHALL BE VERTICAL GRANITE UNLESS OTHERWISE NOTED.

UTILITY NOTES:

1. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNING UTILITIES, EITHER OVERHEAD OR UNDERGROUND, WITHIN THE CONSTRUCTION AREA AND SHALL COORDINATE WITH THE UTILITY COMPANIES FOR RELOCATING AND/OR SUPPORTING THEIR UTILITIES IN ACCORDANCE WITH THE SPECIFICATIONS.
2. THE CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO EXISTING FACILITIES AT ALL TIMES. IF ANY DISRUPTION MUST OCCUR, CONTRACTOR SHALL NOTIFY AND COORDINATE WITH FACILITY AT LEAST 72 HOURS IN ADVANCE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF EXISTING UTILITIES AND STRUCTURES DAMAGED OR REMOVED BY THE CONTRACTOR DURING THEIR OPERATIONS.
4. THE CONTRACTOR SHALL COORDINATE MATERIALS AND INSTALLATION SPECIFICATIONS WITH THE INDIVIDUAL UTILITY AGENCIES/COMPANIES, AND ARRANGE FOR ALL INSPECTIONS.
5. FINAL ELEVATIONS OF UTILITY STRUCTURES ARE TO BE SET FLUSH WITH FINISH GRADES. ADJUST ALL OTHER RIM ELEVATIONS OF MANHOLES, WATER GATES, GAS GATES, AND OTHER UTILITIES TO FINISHED GRADE WITHIN LIMITS OF WORK.
6. DURING EXCAVATION, IT IS ANTICIPATED THAT EXISTING UTILITIES AND SEWERS WILL BE EXPOSED. THE CONTRACTOR SHALL PROVIDE PROTECTION AND SUPPORT OF THESE FACILITIES AND REPAIR ANY DAMAGE CAUSED BY THE WORK IN A MANNER SATISFACTORY TO THE OWNER.
7. ALL ELECTRIC MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE AS WELL AS STATE AND LOCAL CODES.
8. INSTALL NYLON PULL ROPES IN UNDERGROUND CONDUITS TO FACILITATE PULLING CABLES.
9. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL HANDHOLES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
10. THE CONTRACTOR SHALL REVIEW THE LOCATION OF ALL OVERHEAD WIRES WITHIN THE PROJECT AREA IN THE FIELD TO DETERMINE THEIR IMPACT ON CONSTRUCTION MEANS AND METHODS.
11. THE NUMBER, TYPE, AND SIZE OF UTILITY CONDUITS SHALL BE DETERMINED BY THE UTILITY COMPANY.
12. THE EXACT LOCATIONS OF NEW UTILITY SERVICES SHALL BE DETERMINED BY THE UTILITY COMPANY.
13. SEWER SYSTEMS SHALL HAVE A MINIMUM GROUND COVER OF 4' WHEN CROSS COUNTRY AND A MINIMUM GROUND COVER OF 6' WHEN BENEATH PAVEMENT. IF THE REQUIRED MINIMUM AMOUNT OF COVER CANNOT BE OBTAINED, INSTALL 4" RIGID INSULATION ABOVE THE SEWER LINE.
14. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL CODES.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATIONS, SIZE AND ELEVATIONS OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION TO DETERMINE APPROPRIATE ACTION TO BE TAKEN BEFORE PROCEEDING WITH THE WORK.
16. CONTRACTOR TO COORDINATE WITH ALL UTILITY COMPANIES AND DIGSAFE PRIOR TO ANY EXCAVATION. CONTRACTOR TO CONTACT DIGSAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
17. ALL ON-SITE UTILITIES SHALL BE UNDERGROUND.
18. CONTRACTOR TO COORDINATE UNDERGROUND ELECTRIC, INCLUDING BUT NOT LIMITED TO SIZE, LOCATION, MATERIAL, CONDUIT, AND HAND HOLES, WITH ELECTRIC UTILITY CONTACT LISTED ON DWG. C1.
19. WATER LINE TO BE INSTALLED BY OTHERS. ALL WATER TO HAVE 6 FEET COVER AND MIN. 10 FT HORIZONTAL AND 18 IN. VERTICAL SEPARATION BETWEEN WATER AND SEWER WITH WATER CROSSING OVER SEWER. WORK SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT REGULATIONS.

DRAINAGE NOTES:

1. THE STORM DRAINAGE SYSTEM SHALL BE CONSTRUCTED TO LINE AND GRADE AS SHOWN ON THE PLANS. ALL PIPE MATERIALS SHALL BE AS SPECIFIED ON THE PLANS. CONSTRUCTION METHODS SHALL CONFORM TO NHDOT STANDARD SPECIFICATIONS, SECTION 603. CATCH BASINS AND DRAIN MANHOLES SHALL CONFORM TO SECTION 604. ALL CATCH BASIN GRATES SHALL BE TYPE B AND CONFORM TO NHDOT STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED.
2. PROPOSED RIM ELEVATIONS OF DRAINAGE MANHOLES AND CATCH BASINS ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES.
3. THE CONTRACTOR SHALL PROVIDE FOR THE HANDLING OF EXISTING FLOWS FROM SERVICE CONNECTIONS AND MAINLINE PIPES. THE EXISTING SEWERS AND DRAINS HAVE ACTIVE FLOWS AND THE CONTRACTOR SHALL MAINTAIN CONTINUOUS FLOW WITHOUT RESTRICTIONS.
4. THE CONTRACTOR SHALL STABILIZE ANY AND ALL DITCHES, SWALES AND PONDS PRIOR TO DIRECTING STORM WATER RUN-OFF TO THEM.
5. WHEN CONNECTING NEW PIPES TO EXISTING STRUCTURES SUCH AS MANHOLES AND CATCH BASINS, THE STRUCTURE SHALL BE COMPLETELY CLEANED OUT. THE HOLE MADE IN THE STRUCTURE SHALL BE AS SMALL AS NECESSARY. THE STRUCTURE SHALL BE REPAIRED TO MATCH ITS ORIGINAL TYPE OF CONSTRUCTION. THE JOINT BETWEEN THE STRUCTURE AND THE PIPE SHALL BE MADE WATERTIGHT BY FILLING THE JOINT WITH MORTAR.
6. THE CONTRACTOR SHALL CLEAN THE ENTIRE STORMWATER SYSTEM OF ALL SEDIMENT AND DEBRIS, WITHIN THE LIMIT OF WORK UPON COMPLETION OF CONSTRUCTION.
7. ALL DRAIN PIPE WITH LESS THAN 3' OF COVER SHALL BE INSULATED. INSULATION SHALL BE RIGID CLOSED CELL WITH A MINIMUM R VALUE OF 10.
8. ALL PROPOSED CATCH BASINS NOT IDENTIFIED AS DROP INLETS SHALL BE DEEP SUMP CATCH BASINS WITH 4' SUMPS.

EARTHWORK & GRADING NOTES:

1. GRADE AWAY FROM BUILDING WALLS AT 2% MINIMUM (TYPICAL).
2. PROVIDE UNIFORM SLOPE BETWEEN CONTOURS AND/OR SPOT ELEVATIONS.
3. EARTH SLOPES SHALL BE NO STEEPER THAN 2:1 (HORIZONTAL:VERTICAL) AND SHALL BE FLATTER WHERE SHOWN.
4. GENERAL FILL BEYOND PAVED AREAS SHALL BE FREE OF BRUSH RUBBISH, STUMPS, AND STONES LARGER THAN 8". FILL SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 8" IN THICKNESS. THE DRY DENSITY AFTER COMPACTION SHALL NOT BE LESS THAN 95% OF THE STANDARD PROCTOR TEST AND DONE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D698.
5. AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, THE SUBGRADE SHALL BE LOOSENEED BY SCARIFYING TO A DEPTH OF AT LEAST 2" TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL.
6. FILL OR TOPSOIL SHALL NEITHER BE PLACED NOR COMPACTED WHILE IN A FROZEN OR MUDDY CONDITION OR WHILE SUBGRADE IS FROZEN.
7. FINISH PAVEMENT SURFACES AND LAWN AREAS SHALL BE FREE OF LOW SPOTS AND PONDING AREAS.
8. THE CONTRACTOR SHALL STABILIZE ANY AND ALL DITCHES, SWALES AND PONDS PRIOR TO DIRECTING STORMWATER RUNOFF TO THEM.
9. ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS THAT DO NOT HAVE A SURFACE TREATMENT SPECIFICALLY SPECIFIED SHALL BE RESTORED TO A MINIMUM OF 6-INCHES OF SEEDED TOPSOIL, FERTILIZER, AND MULCH.
10. THE CONTRACTOR SHALL REMOVE, CONTAIN, TEST AND DISPOSE OF EXCAVATED SOILS IN ACCORDANCE WITH THE NHDOT STANDARD SPECIFICATIONS DIVISION 200 - EARTHWORK.
11. SPOT GRADES SHOWN ARE PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.

ABBREVIATIONS:

ABAN	ABANDONED
ADJ	ADJUST
APPROX	APPROXIMATE
B=	BOTTOM=
BC	BOTTOM OF CURB
BIT CONC	BITUMINOUS CONCRETE
BLDG	BUILDING
BW	BOTTOM OF WALL
CB	CATCH BASIN
CBCI	CATCH BASIN CURB INLET
CI	CAST IRON
CICL	CAST IRON CEMENT LINED
CIP	CAST IN PLACE
CL	CENTER LINE
CLF	CHAIN LINK FENCE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CP	CONCRETE PIPE
DI	DUCTILE IRON, DROP INLET
DICL	DUCTILE IRON CEMENT LINED
DIA	DIAMETER
DMH	DRAIN MANHOLE
DWG	DRAWING
DYCL	DOUBLE YELLOW CENTER
EL, ELEV	ELEVATION
ELEC	ELECTRIC
ELEV	ELEVATION
EXIST	EXISTING
FES	FLARED END SECTION
FFE	FINISH FLOOR ELEVATION
FM	FORCE MAIN
GC	GRANITE CURB
GG	GAS GATE
GM	GAS METER
GR	GUARDRAIL
GW	GUY WIRE
HDP	HIGH DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
HR	HANDRAIL
HVAC	HEAT VENT AIR CONDITIONING
HW	HEADWALL
HYD	HYDRANT
INV	INVERT
I=	INVERT=
IP	IRON PIPE
LP	LIGHT POLE
LS	LANDSCAPED
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
NO, #	NUMBER
NTS	NOT TO SCALE
P	POST
PERF	PERFORATED
PL	PLASTIC
PROP	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R=	RIM=
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
(rec)	RECORD
RET	RETAINING
RT	RIGHT
SGC	SLOPED GRANITE CURB
SMH	SEWER MANHOLE
SPEC	SPECIFICATION
SS	SANITARY SEWER
STA	STATION
SW	SIDEWALK
SWEL	SOLID WHITE EDGE LINE
SWLL	SOLID WHITE LANE LINE
TC	TOP OF CURB
TELE	TELEPHONE
TRANS	TRANSFORMER
TS	TOP OF SLOPE
TW	TOP OF WALL
TYP	TYPICAL
UP	UTILITY POLE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VGC	VERTICAL GRANITE CURB
W	WATER
WC	WYE CONNECTION
WG	WATER GATE
WIP	WROUGHT IRON PIPE

LEGEND

EXISTING	PROPOSED	DESCRIPTION
---	---	PROPERTY LINE
---	---	RIGHT OF WAY
---	---	EASEMENT
---	---	BUILDING SETBACK
---	---	PARKING SETBACK
---	---	SURVEY MONUMENT
5+00	5+00	BASELINE
---	---	LIMIT OF DEVELOPMENT
---	---	ROCK /LEDGE
---	---	EDGE OF GRAVEL
---	---	EDGE OF PAVEMENT
---	---	EDGE OF CONCRETE
SGC	SGC	SLOPED GRANITE CURB
VGC	VGC	VERTICAL GRANITE CURB
---	---	SAWCUT
---	---	BUILDING
←EN	←EN	BUILDING ENTRANCE
←LD	←LD	LOADING DOCK
○	●	BOLLARD
---	---	SIGN
---	---	DOUBLE SIGN
---	---	GUARDRAIL
---	---	TREE
---	---	CHAINLINK FENCE
---	---	FENCE
---	---	RETAINING WALL
---	---	STREAM/POND/WATERCOURSE
---	---	SILT FENCE
---	---	DRAINAGE FLOW
---	---	SWALE
---	98	MINOR CONTOUR
---	100	MAJOR CONTOUR
---	---	TRAFFIC ARROW
---	---	PARKING COUNT
---	---	SINGLE WHITE LINE
---	---	DOUBLE YELLOW LINE
---	---	STOP LINE
---	---	CROSSWALK
---	---	ACCESSIBLE CURB RAMP
---	---	DETECTABLE WARNING PANEL
---	---	ACCESSIBLE PARKING
---	---	VAN-ACCESSIBLE PARKING
---	97.5	SPOT ELEVATION
---	---	MONITORING WELL
---	---	UNDER DRAIN
---	---	DRAIN
---	---	SEWER
---	---	OVERHEAD WIRE
---	---	WATER
---	---	FIRE PROTECTION
---	---	GAS
---	---	UNDERGROUND ELECTRIC
---	---	TELEPHONE
---	---	CABLE TV
---	---	TEL/DATA
---	---	CATCH BASIN
---	---	DOUBLE CATCH BASIN
---	---	DRAIN MANHOLE
---	---	PLUG OR CAP
---	---	CLEANOUT
---	---	FLARED END SECTION
---	---	HEADWALL
---	---	SEWER MANHOLE
---	---	WATER SHUT-OFF
---	---	WATER VALVE & BOX
---	---	GAS GATE
---	---	GAS METER
---	---	ELECTRIC MANHOLE
---	---	ELECTRIC METER
---	---	LIGHT POLE
---	---	TRANSFORMER PAD
---	---	UTILITY POLE
---	---	GUY POLE
---	---	GUY WIRE & ANCHOR
---	---	TELEPHONE MANHOLE
---	---	INLET PROTECTION

LEGEND

PROPOSED	DESCRIPTION
---	STABILIZED CONSTRUCTION ENTRANCE
---	STRUCTURE TO BE REMOVED
---	PAVEMENT TO BE REMOVED
---	BITUMINOUS CONCRETE PAVING
---	CONCRETE
---	RIP-RAP
---	EROSION CONTROL MATTING

ENGINEER

THIS DOCUMENT IS PREPARED AS AN INSTRUMENT OF SERVICE AND IT MAY NOT BE USED, REPRODUCED, DISSEMINATED OR TRANSMITTED IN ANY MANNER, INCLUDING ELECTRONIC, WITHOUT THE WRITTEN PERMISSION OF HIA.

Peace International Tradeport Associates, Inc.
100 International Dr. #360, Portsmouth, NH 03801
Tel (603) 431-2920 Fax (603) 431-8067 Web: www.woyettanner.com
© Copyright 2015 Hoyle, Tanner & Associates, Inc.

CLIENT: TOWN OF ALLENSTOWN
16 SCHOOL STREET
ALLENSTOWN, NH 03275

PROJECT: REYNOLDS AVENUE AREA DRAINAGE & ROADWAY IMPROVEMENTS
ALLENSTOWN, NH

DESIGNED BY: NTS
DATE: SEPTEMBER 16, 2015

DRAWN BY: MAD
CHECKED BY: WRD

REVISION DESCRIPTION

GENERAL NOTES & LEGEND

C2

PROJECT NO. 562803
SHEET 2 OF 10

THIS DOCUMENT IS PREPARED AS AN INSTRUMENT OF SERVICE AND SHALL BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT MAY NOT BE USED FOR ANY OTHER PROJECT, REPRODUCED, DISSEMINATED OR TRANSMITTED IN ANY MANNER, INCLUDING ELECTRONIC, WITHOUT THE WRITTEN PERMISSION OF HTA.

Hoyle, Tanner & Associates, Inc.
100 International Dr., #360, Portsmouth, NH 03801
Tel: (603) 431-2520 Fax: (603) 431-8067 Web: www.hoyletanner.com
© Copyright 2015 Hoyle, Tanner & Associates, Inc.

CLIENT: TOWN OF ALLENSTOWN
16 SCHOOL STREET
ALLENSTOWN, NH 03275
PROJECT: REYNOLDS AVENUE AREA DRAINAGE & ROADWAY IMPROVEMENTS
ALLENSTOWN, NH

EXISTING CONDITIONS
PLAN - 2

C4

PROJECT NO. 562803
SHEET 3 OF 10

111-3
THOMAS HODGSON & SONS, INC.
STREET TOWN
BK 2388 PG 1678 8/1/02
(25 CANAL ST.)

112-245
PUBLIC SERVICE CO. OF N.H.
STREET TOWN
BK 745 PG 214 2/10/54
(28 CANAL ST.)

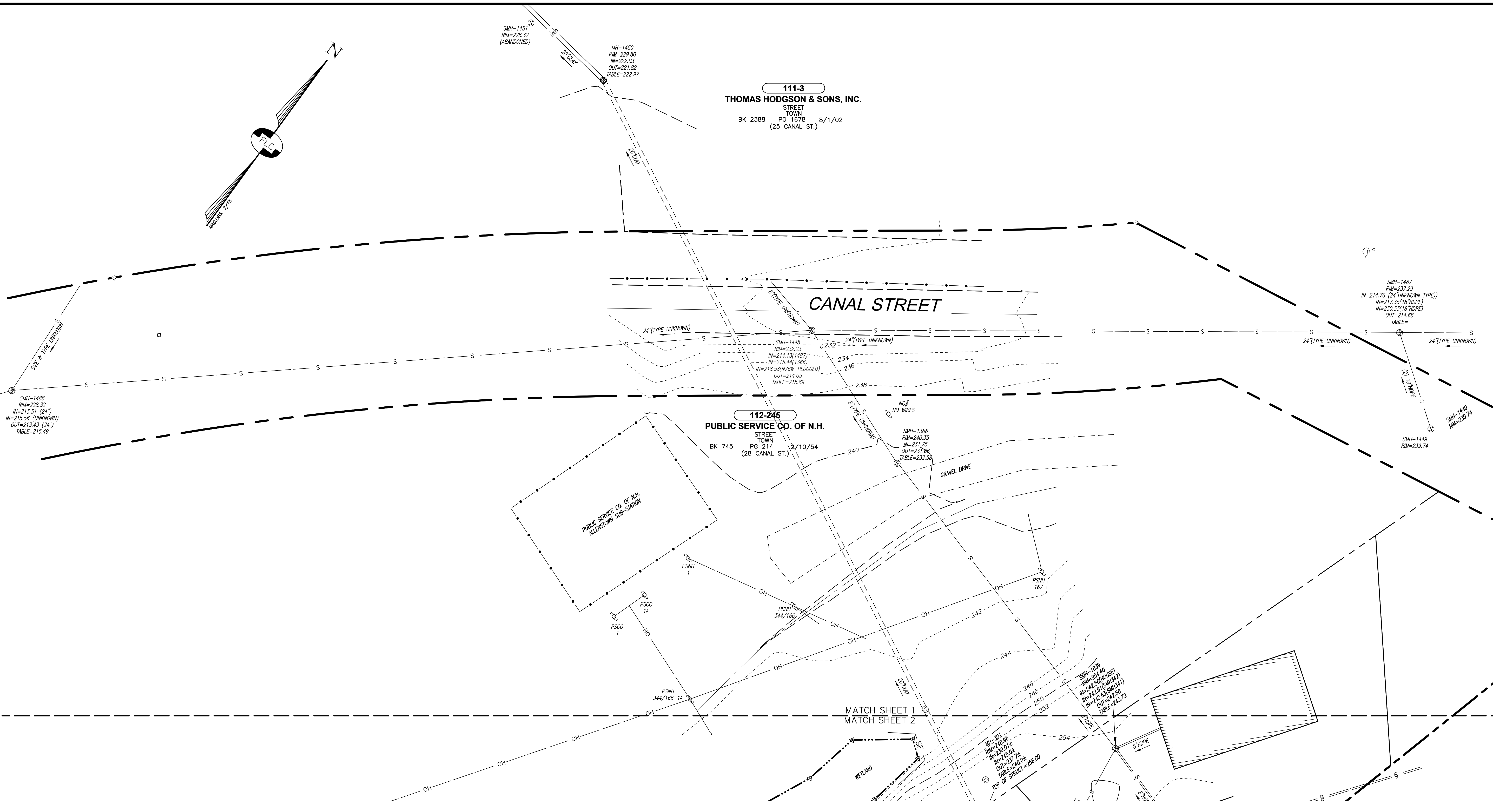
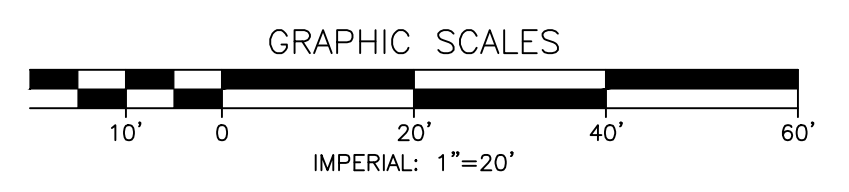
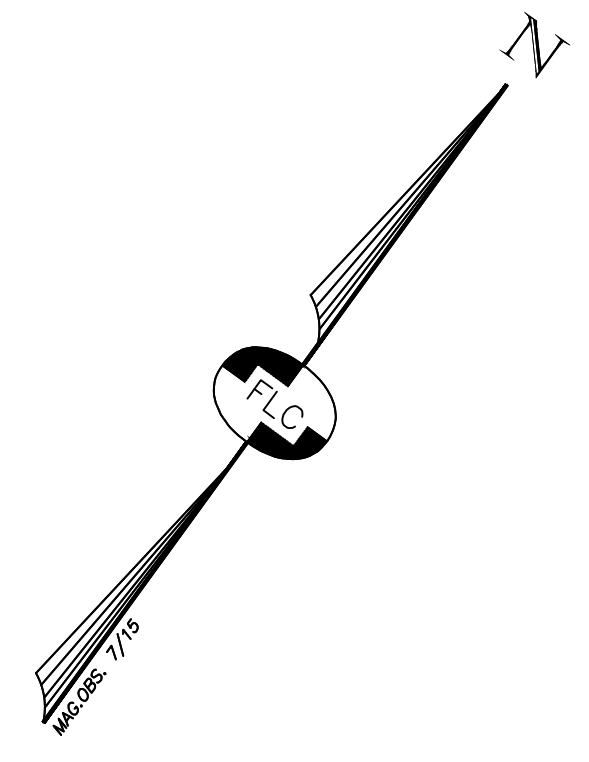
PUBLIC SERVICE CO. OF N.H.
ALLENSTOWN SUB-STATION

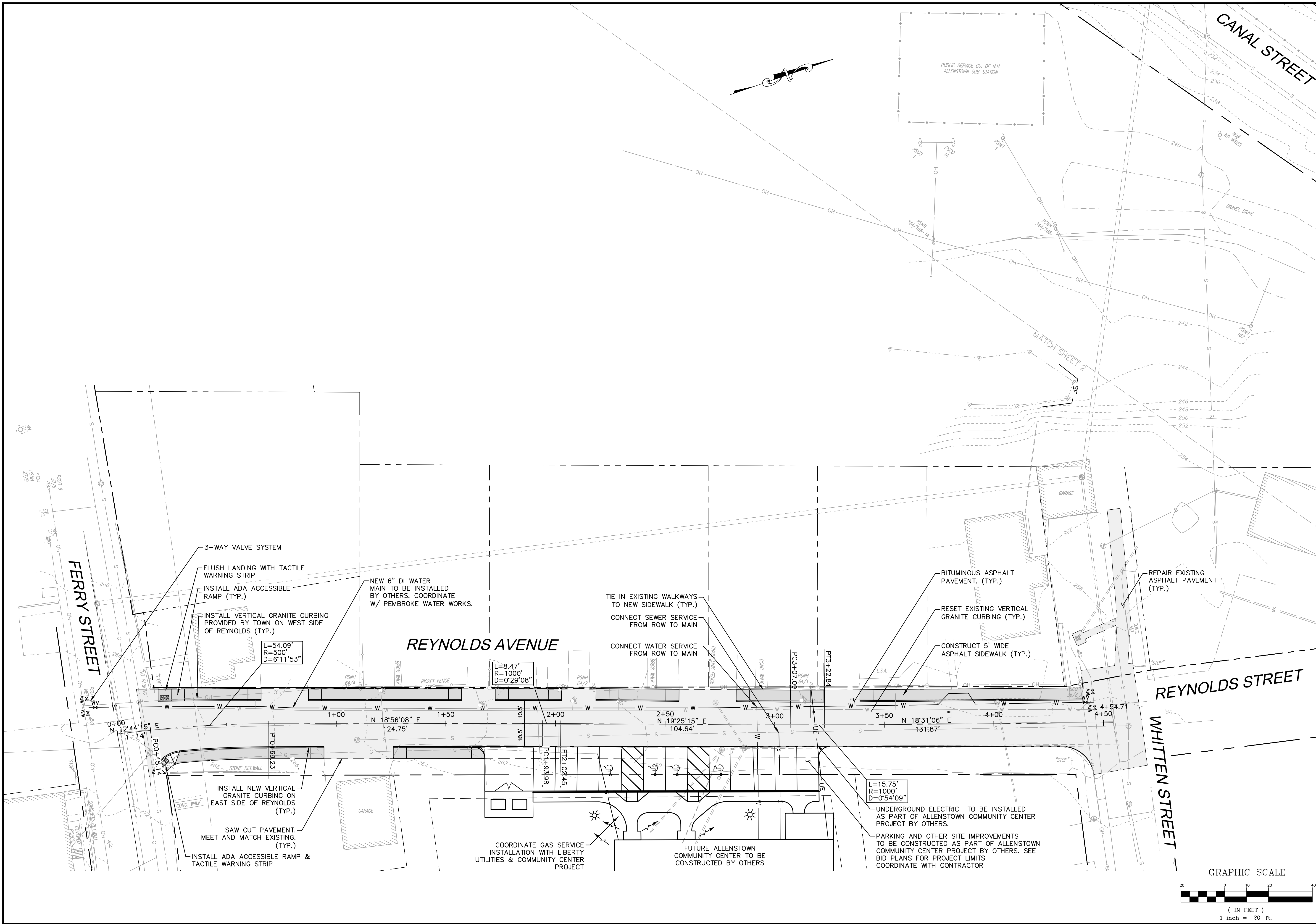
CANAL STREET

MATCH SHEET 1
MATCH SHEET 2

WETLAND

GRAVEL DRIVE





ENGINEER
 STATE OF NEW HAMPSHIRE
 MARISA
 DESJARDIS
 No. 12194
 PROFESSIONAL ENGINEER
 10/15

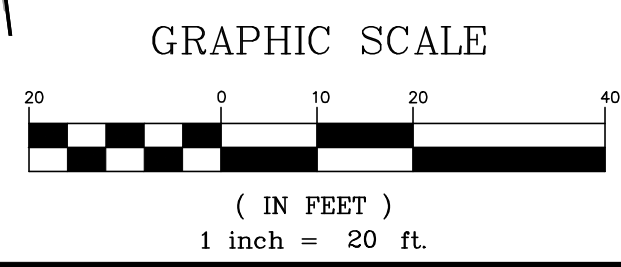
REV.	REVISION DESCRIPTION	DATE

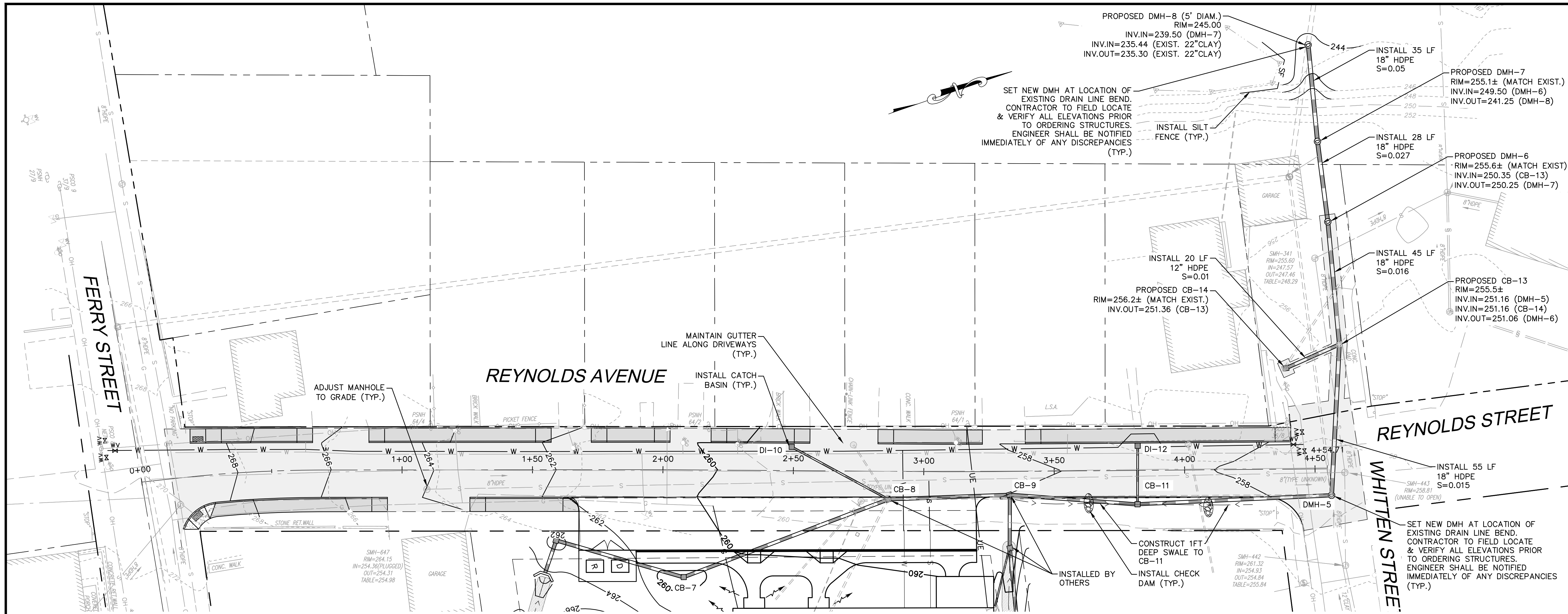
THIS DOCUMENT IS PREPARED AS AN INSTRUMENT OF SERVICE AND IS NOT TO BE USED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION OF HTA. IT MAY NOT BE REPRODUCED, DISSEMINATED OR COPIED IN ANY MANNER, INCLUDING ELECTRONIC, WITHOUT THE WRITTEN PERMISSION OF HTA.

DESIGNED BY: MAD
 DRAWN BY: WRD
 CHECKED BY: MAD
 DATE: SEPTEMBER 18, 2015
 SCALE: 1" = 20'
 Hoyle, Tanner & Associates, Inc.
 100 International Dr., #360, Portsmouth, NH 03801
 Tel: (603) 431-2520, Fax: (603) 431-8067, Web: www.foyletanner.com
 © Copyright 2015 Hoyle, Tanner & Associates, Inc.

CLIENT: TOWN OF ALLENSTOWN
 16 SCHOOL STREET
 ALLENSTOWN, NH 03275
 PROJECT: REYNOLDS AVENUE AREA DRAINAGE & ROADWAY IMPROVEMENTS
 ALLENSTOWN, NH

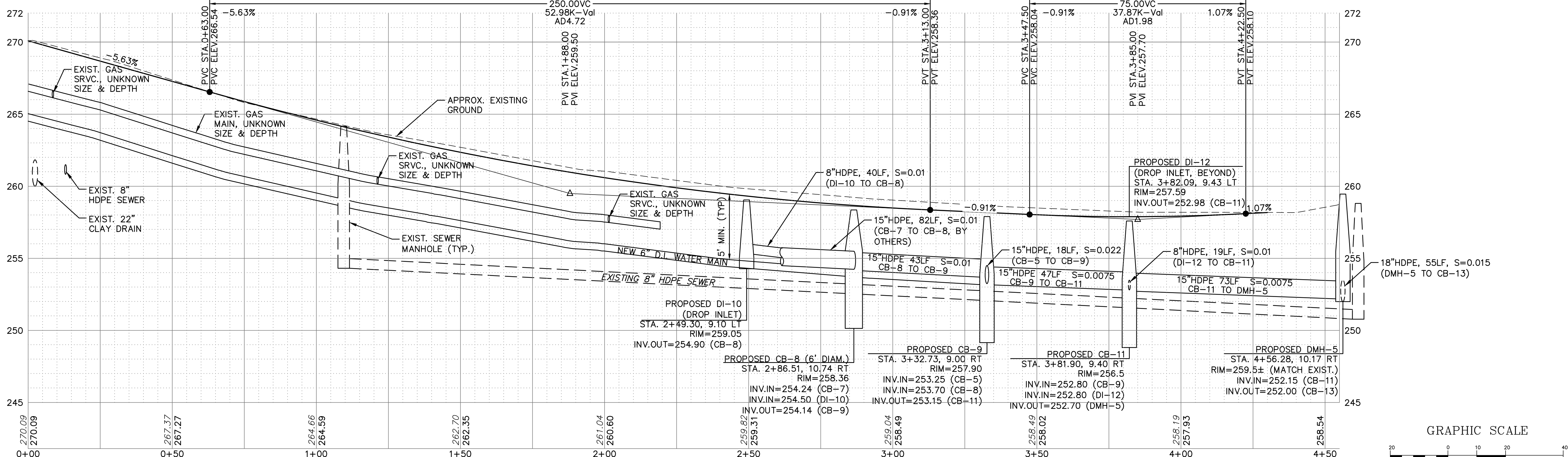
PROPOSED SITE & UTILITY PLAN
C5
 PROJECT NO. 562803
 SHEET 5 OF 10





REYNOLDS AVENUE PLAN

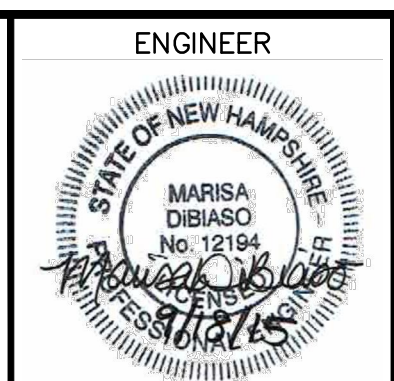
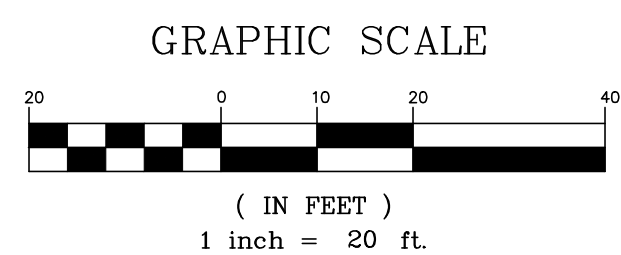
SCALE: 1" = 20'



REYNOLDS AVENUE PROFILE

SCALE: HORIZONTAL 1" = 20' VERTICAL 1" = 4'

- NOTES:
- REFER TO DRAWING G1 FOR NOTES, ABBREVIATIONS AND LEGEND.
 - REFER TO DRAWINGS EX-EX4 FOR EXISTING CONDITIONS.



REV.	REVISION DESCRIPTION	DATE

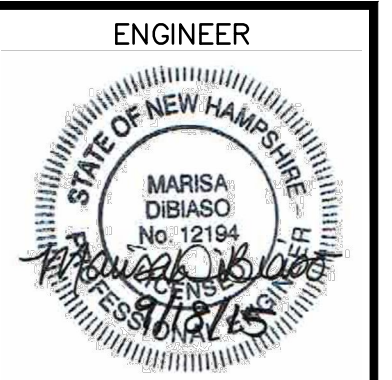
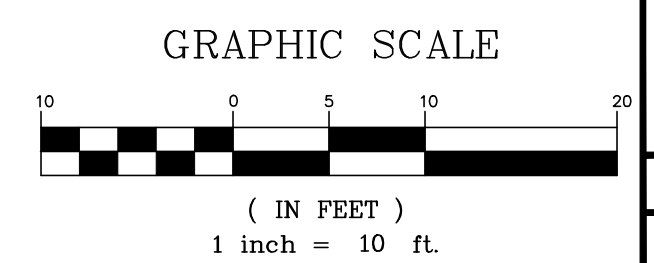
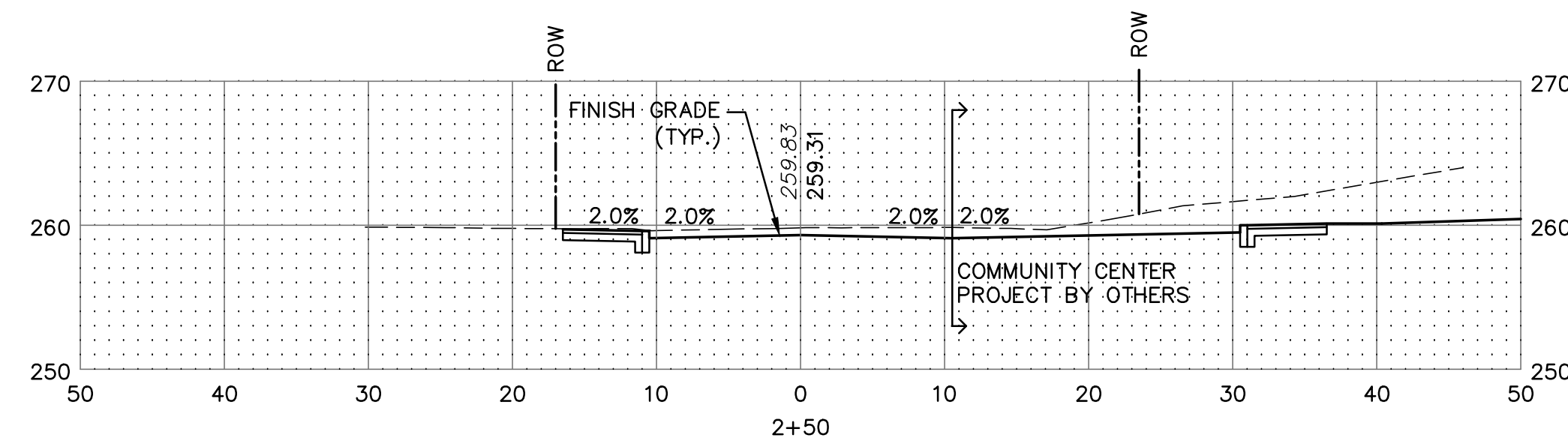
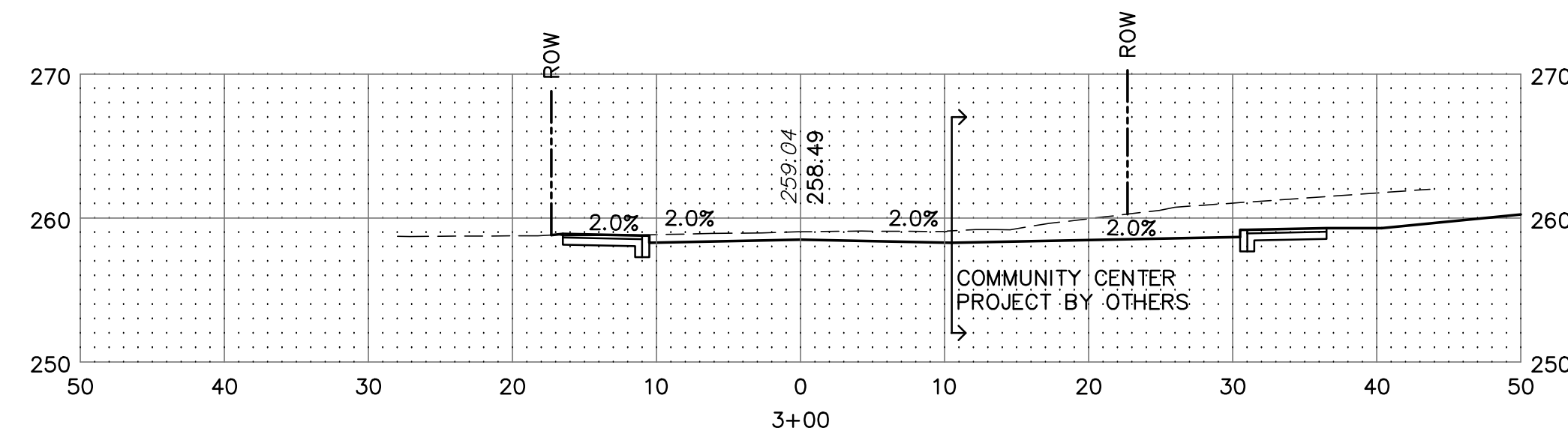
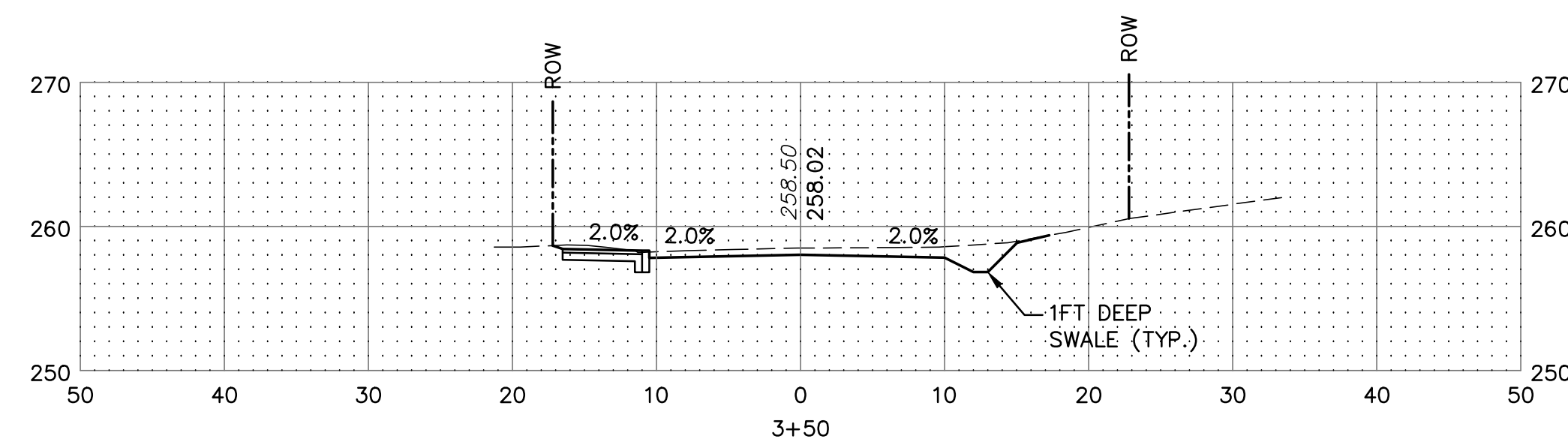
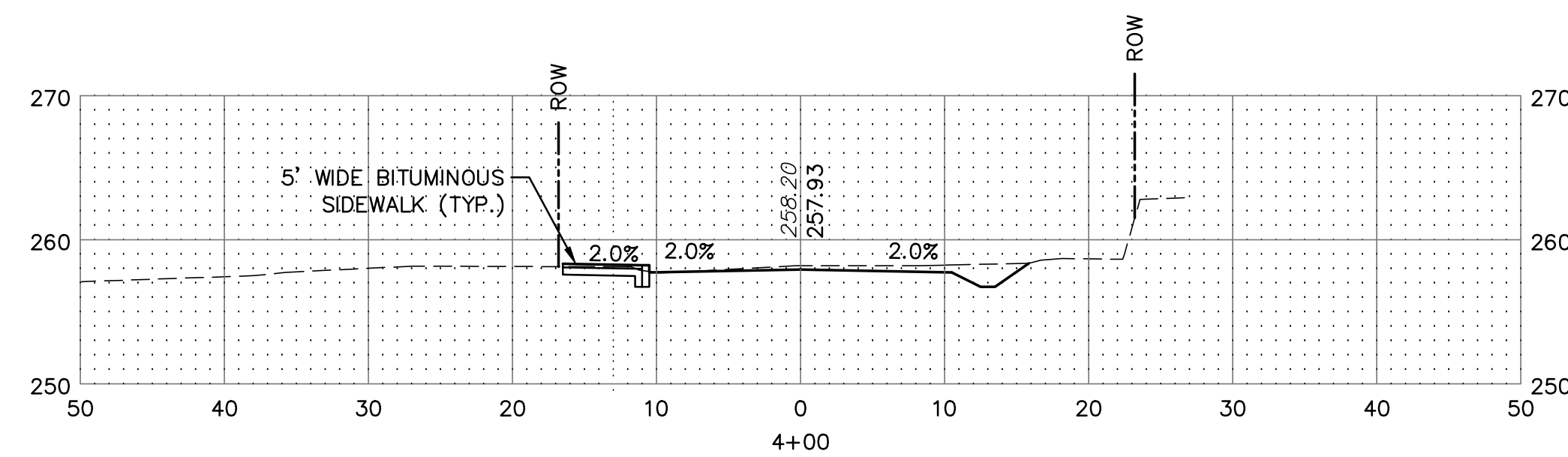
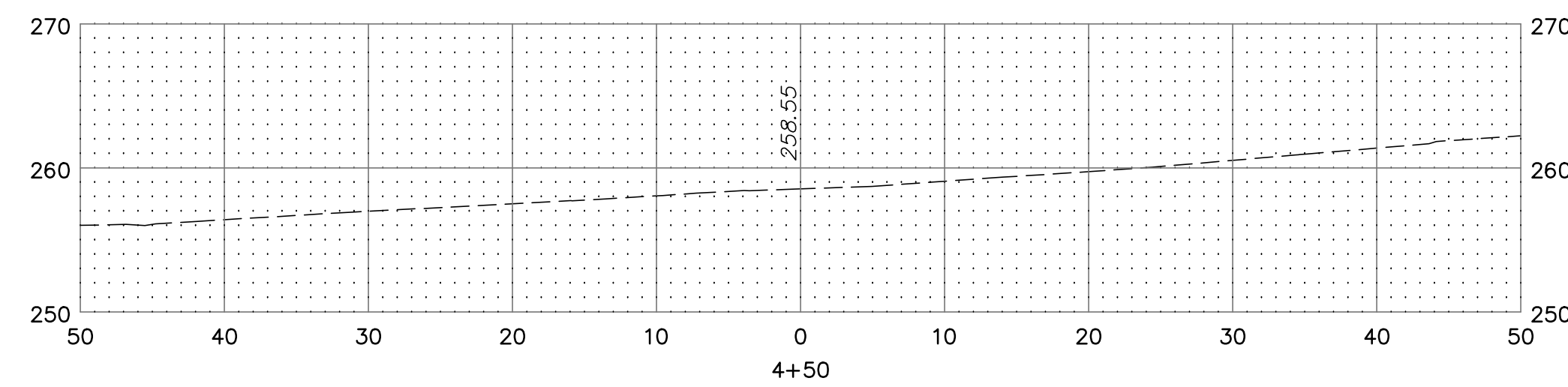
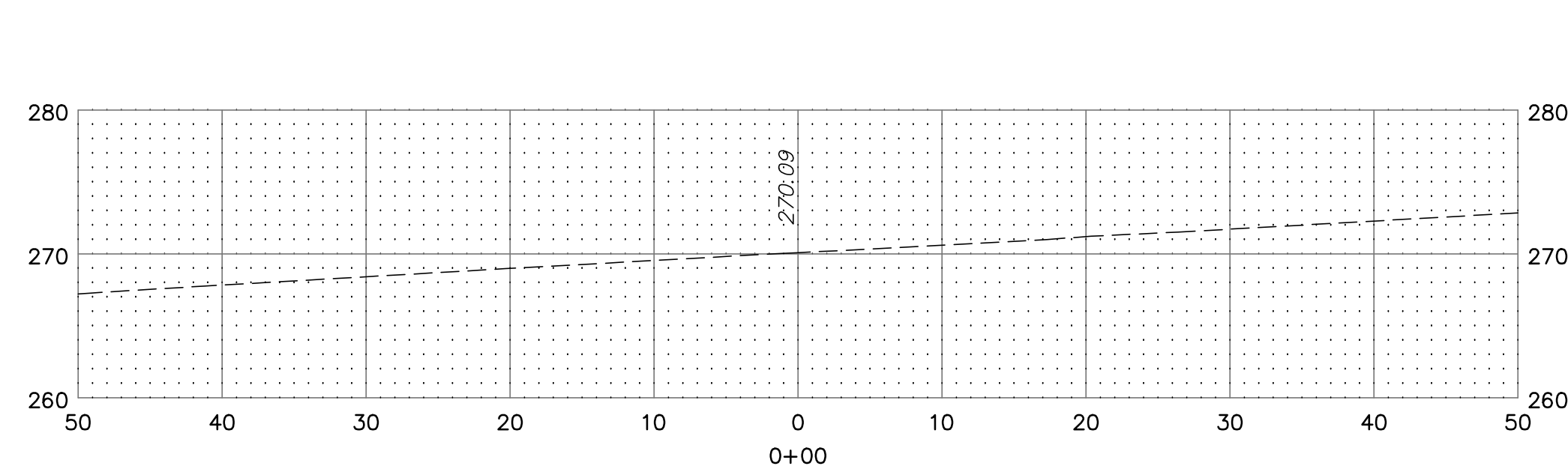
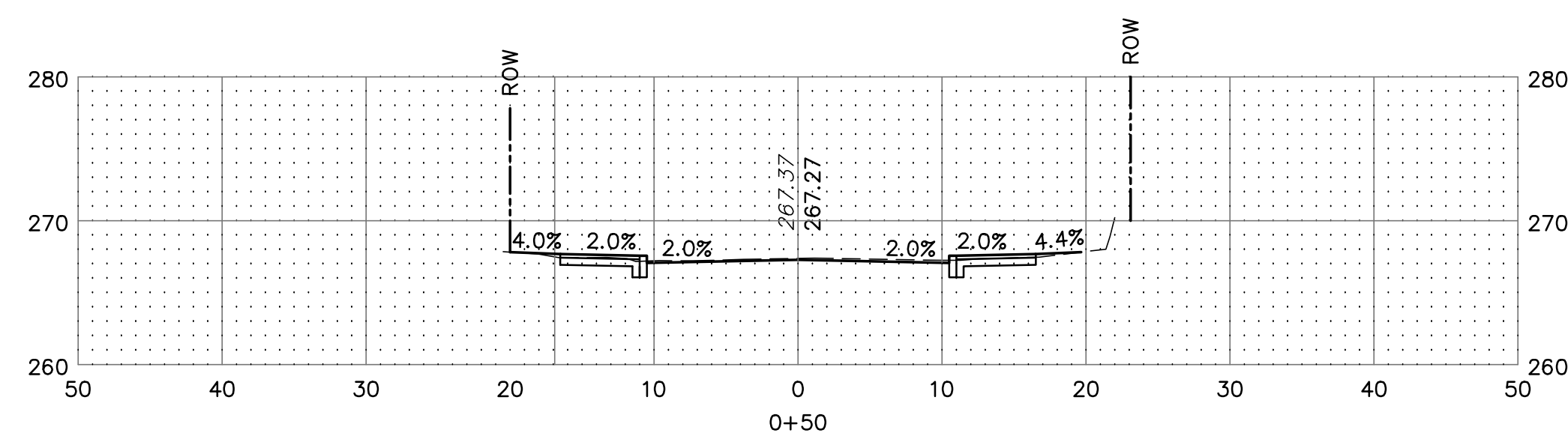
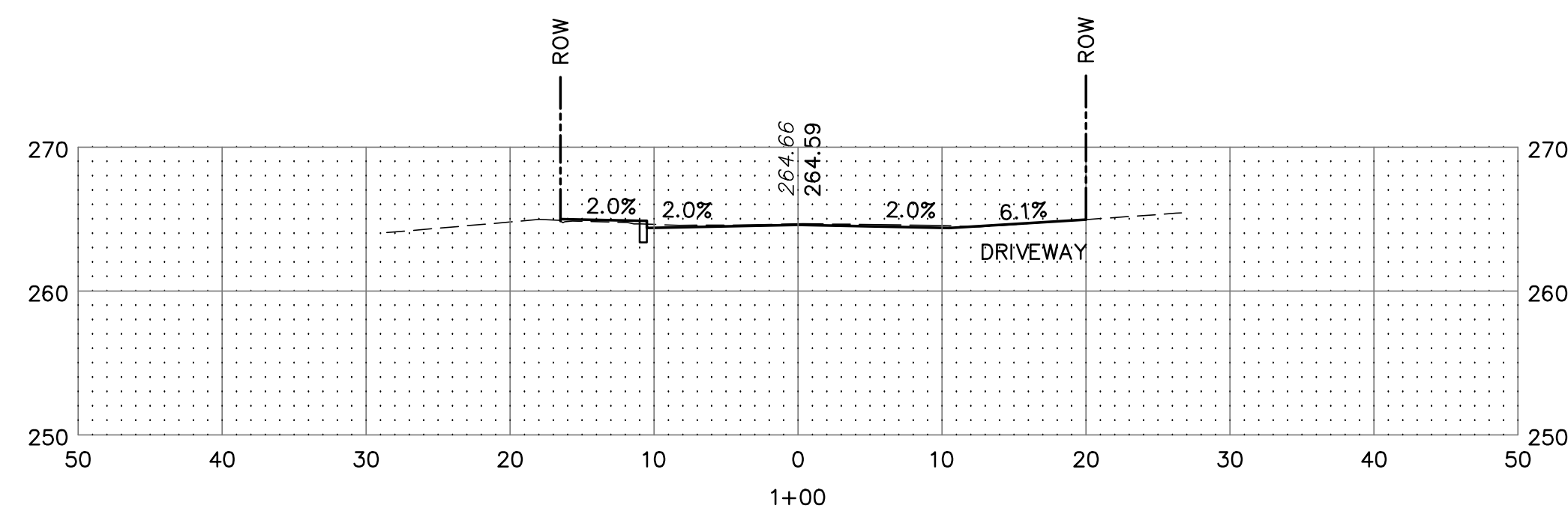
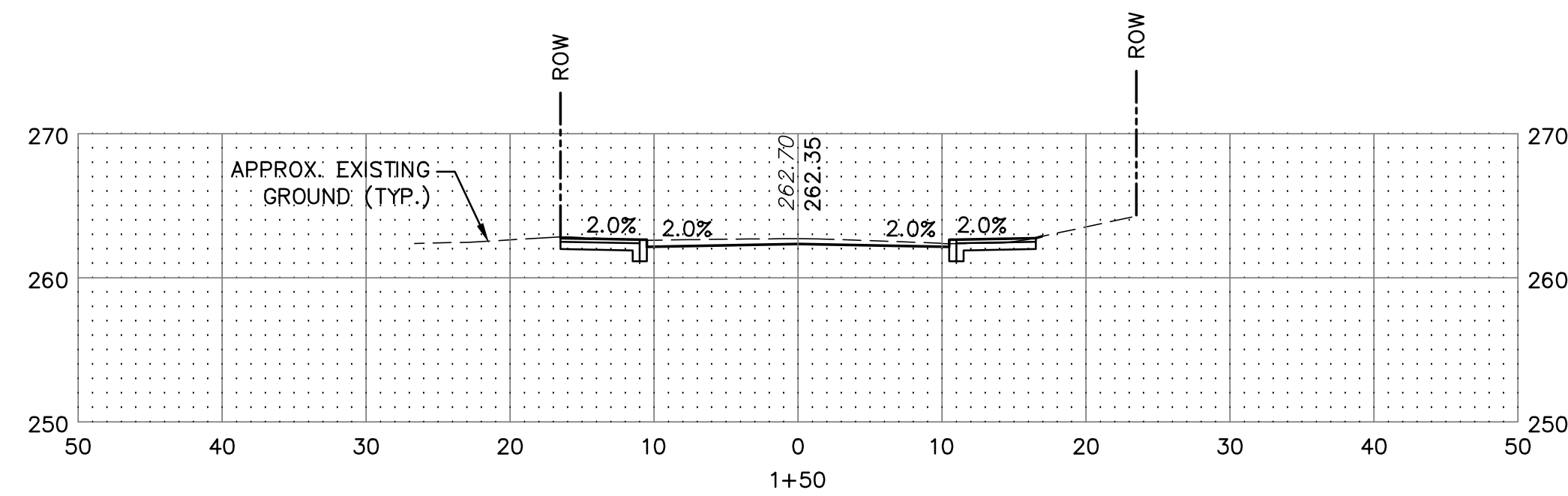
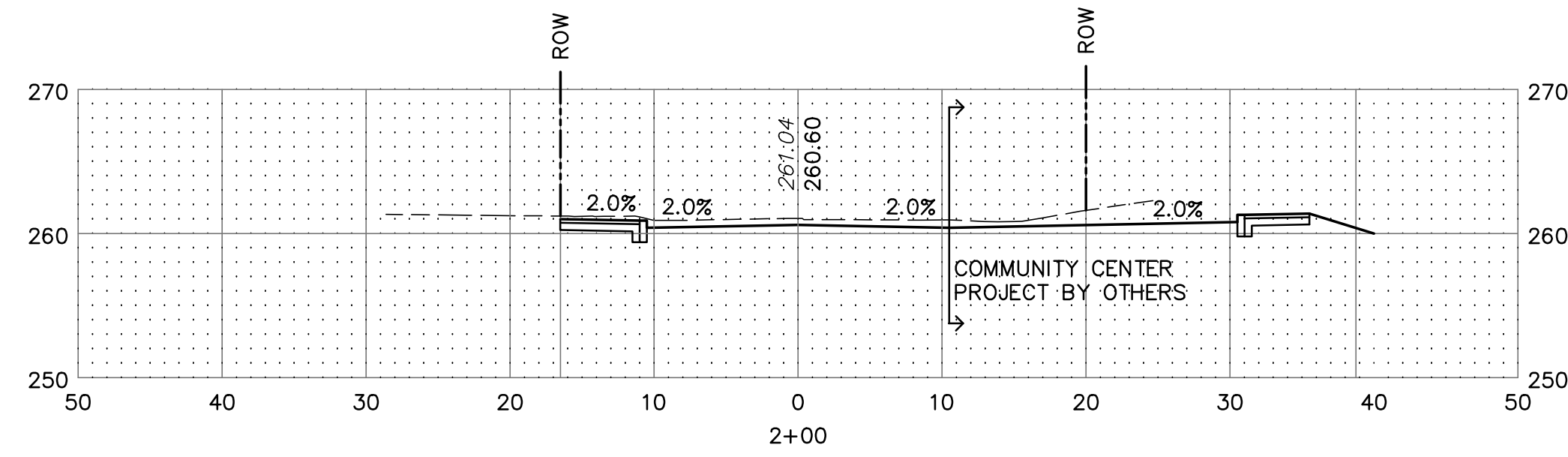
CHECKED BY: WRD
 DRAWN BY: MAD
 DESIGNED BY: MAD

DATE: SEPTEMBER 18, 2015
 SCALE: 1" = 20'

Hoyle, Tanner & Associates, Inc.
 International Tradeport
 100 International Dr., #360, Portsmouth, NH 03801
 Tel: (603) 431-2520, Fax: (603) 431-8067, Web: www.hoyletanner.com
 © Copyright 2015 Hoyle, Tanner & Associates, Inc.

CLIENT: TOWN OF ALLENSTOWN
 16 SCHOOL STREET
 ALLENSTOWN, NH 03275

PROJECT: REYNOLDS AVENUE AREA DRAINAGE & ROADWAY IMPROVEMENTS
 ALLENSTOWN, NH



REV.	REVISION DESCRIPTION	DATE

THIS DOCUMENT IS PREPARED AS AN INSTRUMENT OF SERVICE AND SHALL BE USED ONLY FOR THE PROJECT AND LOCATION SPECIFICALLY IDENTIFIED HEREON. IT MAY NOT BE USED FOR ANY OTHER PROJECT OR LOCATION WITHOUT THE WRITTEN PERMISSION OF HTA.

DESIGNED BY: MAD
CHECKED BY: WRD

Hoyle, Tanner & Associates, Inc.
100 International Dr., #360, Portsmouth, NH 03801
Tel: (603) 431-2520, Fax: (603) 431-8067, Web: www.hoyletanner.com
© Copyright 2015 Hoyle, Tanner & Associates, Inc.

DESIGNED BY: MAD
DATE: SEPTEMBER 18, 2015
SCALE: 1" = 20'

CLIENT: TOWN OF ALLENSTOWN
16 SCHOOL STREET
ALLENSTOWN, NH 03275

PROJECT: REYNOLDS AVENUE AREA DRAINAGE & ROADWAY IMPROVEMENTS
ALLENSTOWN, NH

ROADWAY CROSS SECTIONS

C7

PROJECT NO. 562803
SHEET 7 OF 10

EROSION CONTROL NOTES:

A. GENERAL NOTES

- DURING CONSTRUCTION, AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. THE SMALLEST PRACTICAL AREA OF LAND (5 ACRES MAXIMUM) SHOULD BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHOULD BE KEPT TO A MAXIMUM OF 72 HOURS BEFORE APPLYING TEMPORARY OR PERMANENT EROSION CONTROL MEASURES. CONFINE PERIOD OF DISTURBED AND UNSTABILIZED SOILS TO A MAXIMUM OF 45 DAYS. ALL DITCHES AND SWALES ARE REQUIRED TO BE STABILIZED PRIOR TO DIRECT RECEIPT OF ANY FLOW.
- ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE. ALL CUT AND FILL SLOPES SHALL BE LOAMED AND SEEDED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS. INSTALL SILT FENCE WHERE SHOWN AND AROUND ALL EXISTING DRAINAGE STRUCTURES TO PROJECT. DO NOT REMOVE SILT BARRIERS UNTIL DISTURBED AREAS ARE FULLY COVERED WITH TURF OR OTHER APPLICABLE SURFACE MATERIAL. ALL PONDS ARE TO BE CONSTRUCTED AND STABILIZED PRIOR TO ANY OTHER DRAINAGE SYSTEM WORK, INCLUDING DITCH AND SWALE EXCAVATION. PONDS AND SWALES SHOULD BE INSTALLED BEFORE ROUGH GRADING THE SITE.
- EROSION AND SEDIMENT CONTROL PRACTICES INCLUDE THE USE OF THE FOLLOWING: SILT FENCE BARRIERS, PERMANENT DETENTION/SEDIMENTATION POND BASIN, GRASS AND/OR ROCK LINED SWALES AND DIVERSIONS WITH LEVEL SPREADERS. ALL EROSION CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS CONTAINED IN THE "NH STORMWATER MANUAL", VOLUME 3, DECEMBER 2008.
- CONSTRUCTION AREAS SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED.
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED.
 - OR, EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

B. VEGETATIVE MEASURES

- TOPSOIL STOCKPILING: TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR LATER USE ON CRITICAL AREAS AND ALL OTHER AREAS TO BE SEEDED. THE STOCKPILE WILL NOT BE COMPACTED AND SHALL BE STABILIZED AGAINST EROSION WITH TEMPORARY SEEDING.
- TEMPORARY SEEDING:
 - BEDDING - REMOVE STONES AND TRASH THAT WILL INTERFERE WITH SEEDING THE AREA. WHERE FEASIBLE, TILL THE SOIL TO A DEPTH OF ABOUT 3" TO PREPARE SEED BED AND MIX THE FERTILIZER INTO THE SOIL.
 - FERTILIZER - FERTILIZER SHOULD BE UNIFORMLY SPREAD OVER THE AREA PRIOR TO BEING TILLED INTO THE SOIL. A 10-10-10 MIX OF FERTILIZER SHOULD BE APPLIED AT A RATE OF 300 POUNDS PER ACRE (OR 7 POUNDS PER 1,000 S.F.).
 - SEED MIXTURE - USE ANY OF THE FOLLOWING IN UPLAND AREAS:

TEMPORARY SEEDING RATES:				
SPECIES	PER ACRE	PER 1,000S.F.	DATES	DEPTH
WINTER RYE	112 LBS.	2.5 LBS.	8/15-9/5	1 IN.
OATS	80 LBS.	2.0 LBS.	SPRING-5/15	1 IN.
ANNUAL RYEGRASS	40 LBS.	1.0 LBS.	4/15-9/15 WITH MULCH	.25 IN.
PERENNIAL RYEGRASS	30 LBS.	0.7 LBS.	4/1-6/1 AND/OR 8/15-9/15 W/MULCH	.5 IN.

- SEED MIXTURE - USE ANY OF THE FOLLOWING IN UPLAND AREAS:

TEMPORARY SEEDING RATES:				
SPECIES	PER ACRE	PER 1,000S.F.	DATES	DEPTH
WINTER RYE	112 LBS.	2.5 LBS.	8/15-9/5	1 IN.
OATS	80 LBS.	2.0 LBS.	SPRING-5/15	1 IN.
ANNUAL RYEGRASS	40 LBS.	1.0 LBS.	4/15-9/15 WITH MULCH	.25 IN.
PERENNIAL RYEGRASS	30 LBS.	0.7 LBS.	4/1-6/1 AND/OR 8/15-9/15 W/MULCH	.5 IN.
- MULCHING - WHERE IT IS IMPRACTICAL TO INCORPORATE FERTILIZER AND SEED INTO MOIST SOIL, THE SEEDED AREA SHALL BE MULCHED TO FACILITATE GERMINATION. MULCH IN THE FORM OF STRAW SHOULD BE APPLIED AT A RATE OF 70 TO 90 LBS. PER 1,000 S.F.

3. PERMANENT SEEDING:

- BEDDING - STONES LARGER THAN 4", TRASH, ROOTS, AND OTHER DEBRIS THAT WILL INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA SHOULD BE REMOVED. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF 4" TO PREPARE A SEEDBED AND MIX FERTILIZER INTO THE SOIL.
- FERTILIZER - LIME AND FERTILIZER SHOULD BE APPLIED EVENLY OVER THE AREA PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:

AGRICULTURAL LIMESTONE	100 LBS. PER 1,000 S.F.
10-20-20 FERTILIZER	12 LBS. PER 1,000 S.F.

c. PERMANENT SEEDING MIXTURES (RECOMMENDED)

SPECIES	PER ACRE	PER 1,000S.F.	USE
KENTUCKY BLUEGRASS	50 LBS.	1.15 LBS.	LOAM AREAS
CREeping RED FESQUE	50 LBS.	1.15 LBS.	(NON-SLOPE WORK)
TOTAL	100 LBS.	2.30 LBS.	
SPECIES	PER ACRE	PER 1,000S.F.	USE
TALL FESQUE	20 LBS.	.45 LBS.	ALL SLOPE WORK
CREeping RED FESQUE	20 LBS.	.45 LBS.	
BIRDSFOOT TREFOIL	8 LBS.	.20 LBS.	
TOTAL	48 LBS.	1.10 LBS.	
SPECIES	PER ACRE	PER 1,000S.F.	USE
CREeping BENT GRASS	35 LBS.	.80 LBS.	TREATMENT SWALES
RED TOP	35 LBS.	.80 LBS.	
TALL FESQUE	90 LBS.	2.00 LBS.	
TOTAL	160 LBS.	3.60 LBS.	

TYPE	RATE PER 1,000S.F.	USE AND COMMENTS
STRAW	70 TO 90 LBS.	MUST BE DRY AND FREE FROM MOLD. MAY BE USED WITH PLANTINGS
WOOD CHIPS OR BARK MULCH	460 TO 920 LBS.	USED MOSTLY WITH TREES AND SHRUB PLANTINGS
JUTE AND FIBROUS MATTING	AS PER MANUFACTURER SPECIFICATIONS	USED IN SLOPE AREAS, WATER COURSES AND OTHER AREAS
CRUSHED STONE 1/4" TO 1/2" DIA.	SPREAD MORE THAN 2" THICK	EFFECTIVE IN CONTROLLING WIND AND WATER EROSION.

- SODDING - SODDING IS DONE WHERE IT IS DESIRABLE TO RAPIDLY ESTABLISH COVER ON A DISTURBED AREA. SODDING AN AREA MAY BE SUBSTITUTED FOR PERMANENT SEEDING PROCEDURES ANYWHERE ON SITE. BED PREPARATION, FERTILIZING, AND PLACEMENT OF SOD SHALL BE PERFORMED ACCORDING TO THE S.C.S. HANDBOOK.

C. STRUCTURAL MEASURES

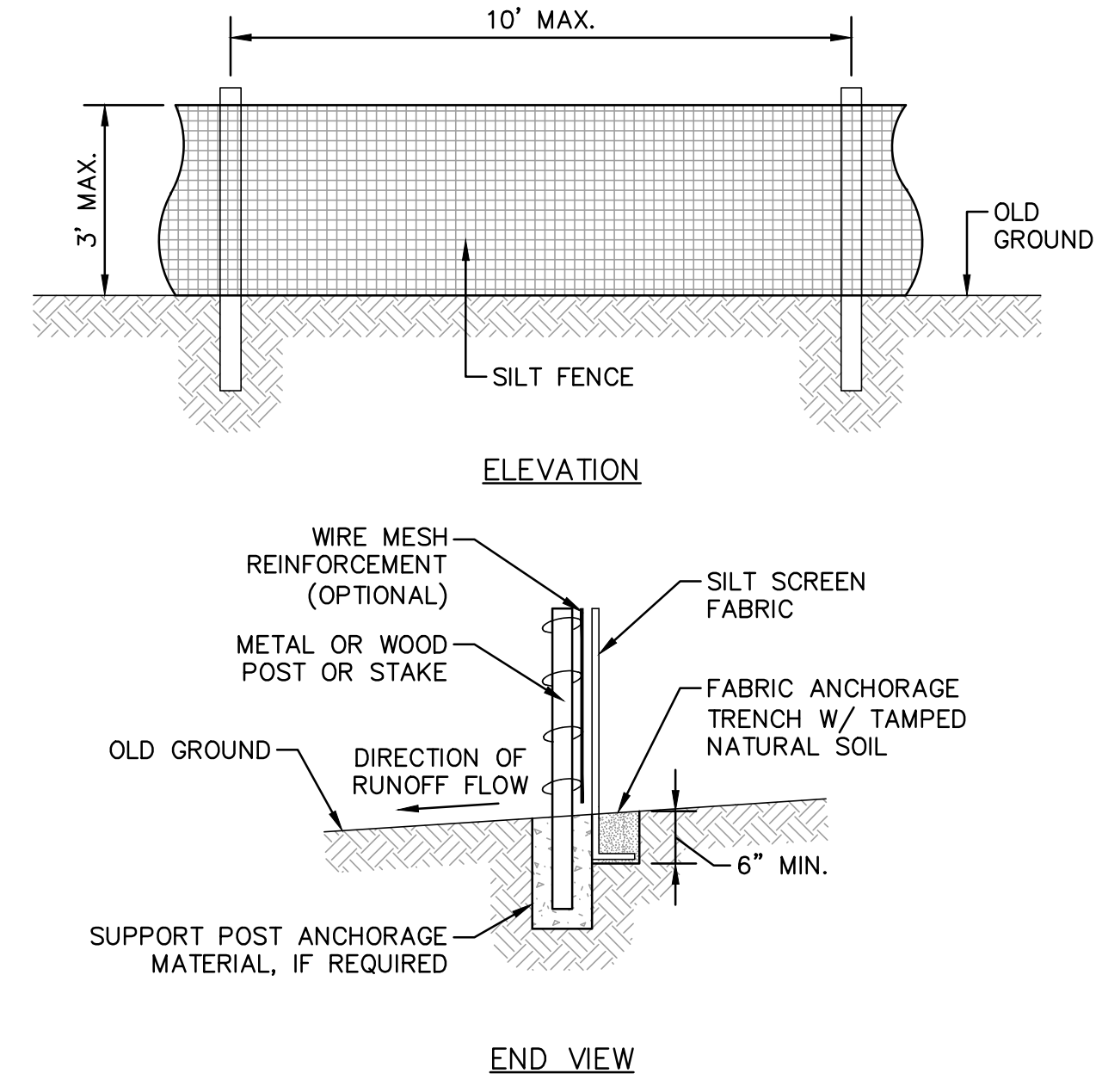
- STRAW BALE BARRIERS/SILT SCREEN FENCES: STRAW BALE BARRIERS AND/OR SILT SCREEN FENCES ARE TO BE INSTALLED IN THE AREAS SHOWN ON THE PLAN. THEY ARE INTENDED PRIMARILY TO INTERCEPT AND FILTER SMALL VOLUMES OF "SHEET FLOWING" RUNOFF, OR AS SEDIMENT TRAPS IN SMALL SWALES. STRAW BALES HAVE A USEFUL LIFE OF 3 MONTHS WHEN WET, AND THEREFORE, MUST BE INSPECTED AND REPAIRED OR REPLACED PERIODICALLY. SILT SCREEN FENCES WILL FUNCTION 6 MONTHS OR LONGER IF KEPT FREE OF SEDIMENT ACCUMULATIONS (SEE DETAILS FOR ADDITIONAL INFORMATION).
- SWALES: TEMPORARY AND/OR PERMANENT SWALES ARE TO BE INSTALLED AS SHOWN ON THE PLAN. SWALES ARE USED TO CONVERT SHEET FLOW TO CHANNEL FLOW AND CONVEY THE RUNOFF TO A PERMANENT CHANNEL, STORM DRAIN, OR DETENTION/SEDIMENT STRUCTURE. SWALES ARE INTENDED TO INTERCEPT RUNOFF AND DIVERT IT FROM AN EXPOSED NEWLY SEEDED SLOPE TOWARD AN ACCEPTABLE OUTLET OR TO REDUCE THE VELOCITY OF RUNOFF FLOWING DOWN FROM A DRAINAGE AREA.
- A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED OF 1.5 INCH STONE ACROSS THE FULL WIDTH OF THE VEHICLE INGRESS EGRESS AREA. THE STONE PAD SHOULD BE AT LEAST 50 FEET LONG, 25 FEET WIDE AND AT LEAST 6 INCHES THICK. ADDITIONAL STONE MAY HAVE TO BE ADDED PERIODICALLY TO MAINTAIN THE PROPER FUNCTIONING OF THE PAD.
- CATCH BASIN SEDIMENT FILTER: STONE CATCH BASIN SEDIMENT FILTERS ARE TO BE INSTALLED IN THE AREAS SHOWN ON THE PLAN. THEY ARE INTENDED PRIMARILY FILTER SMALL VOLUMES OF "SHEET FLOWING" RUNOFF. CATCH BASIN SEDIMENT FILTERS SHALL BE CONSTRUCTED OF FILTER FABRIC BEING INSTALLED OVER INLET GRATE, AND 3/4" WASHED CRUSHED STONE, 12 INCHES THICK. CATCH BASIN SEDIMENT FILTERS WILL LAST LONGER IF KEPT FREE OF SEDIMENT ACCUMULATIONS (SEE DETAILS FOR ADDITIONAL INFORMATION).

D. MAINTENANCE

- DURING THE PERIOD OF CONSTRUCTION AND/OR UNTIL LONG TERM VEGETATION IS ESTABLISHED:
 - SEEDED AREAS WILL BE FERTILIZED AND WILL BE SEEDED AS NECESSARY TO INSURE VEGETATIVE ESTABLISHMENT.
 - ADDITIONAL STONE MAY HAVE TO BE ADDED TO THE CONSTRUCTION ENTRANCE, ROCK LINED SWALES, ETC., PERIODICALLY TO MAINTAIN THE PROPER FUNCTIONING OF THE EROSION CONTROL STRUCTURE.
 - ALL DIVERSION CHANNELS AND SWALES WILL BE CHECKED WEEKLY AND REPAIRED WHEN NECESSARY UNTIL ADEQUATE VEGETATION IS ESTABLISHED.
 - ALL SILT SCREEN FENCES WILL BE CHECKED WEEKLY. NECESSARY REPAIRS WILL BE MADE TO CORRECT UNDERMINING OR DETERIORATION OF THE BARRIER.
 - EROSION CONTROL MEASURES TO BE INSPECTED WEEKLY AND AFTER EVERY 0.5" OF RAINFALL.
- SEE CONSTRUCTION DETAILS FOR ADDITIONAL NOTES AND EROSION CONTROL MAINTENANCE MEASURES.

E. WINTER CONSTRUCTION

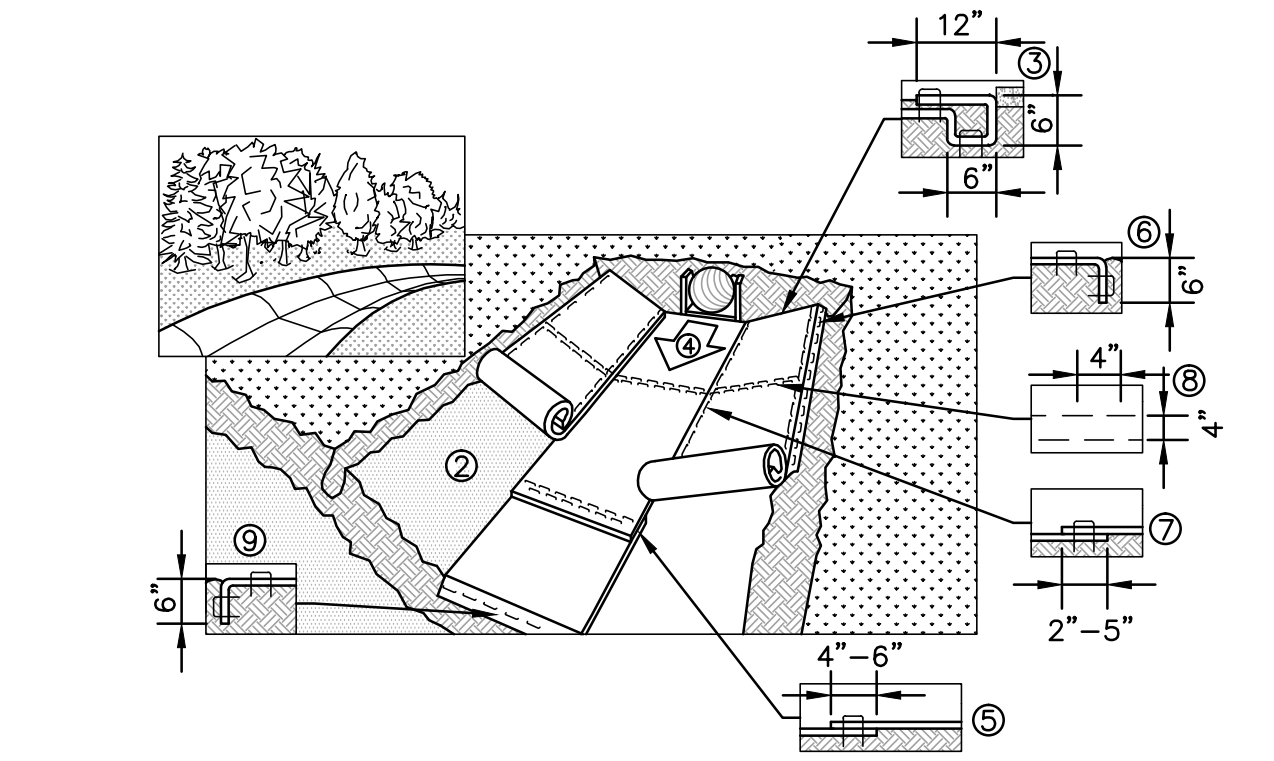
- ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL.



SILT FENCE NOTES:

- SPACING OF FENCE POSTS NOT TO EXCEED 10-0".
- SILT FENCE SHALL BE INSTALLED BEFORE ANY EARTH REMOVAL OR EXCAVATION TAKES PLACE.
- FILTER FABRIC TO BE FASTENED SECURELY TO POSTS WITH WIRE TIES OR STAPLES AT TOP, MIDPOINT AND BOTTOM.
- OVERLAP BY 6". FOLD AND STAPLE ADJOINING SECTIONS OF FILTER FABRIC.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED, AND THE MATERIAL REMOVED WHEN "BULGES" DEVELOP. DO NOT DEPOSIT THE MATERIAL NEAR WETLANDS OR WATERCOURSES.
- FILTER FABRIC SHALL BE ENTRENCHED 6" MINIMUM BELOW EXISTING OR FINISHED GRADE.

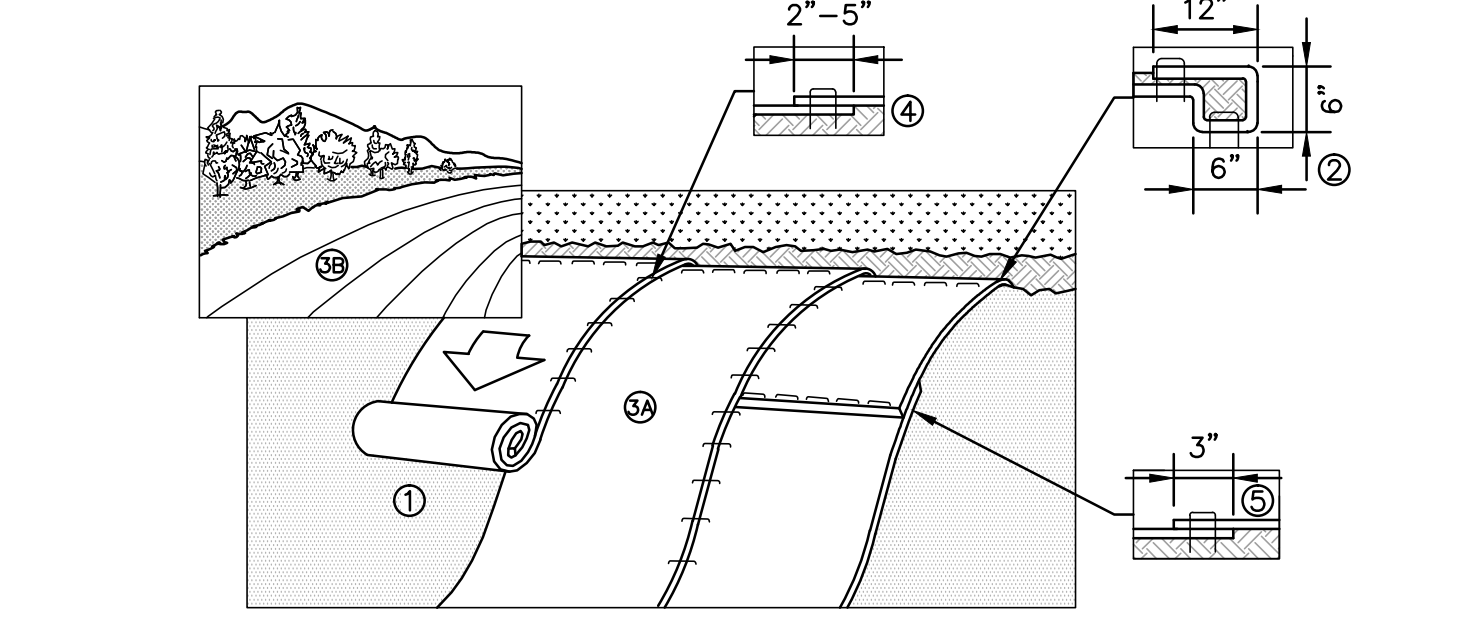
1 SILT FENCE EROSION CONTROL DETAIL
SCALE: NONE



CHANNEL EROSION CONTROL MATTING DETAIL

- NOTES:**
- CRITICAL POINTS**
- OVERLAPS AND SEAMS
 - PROJECTED WATER LINE
 - CHANNEL BOTTOM/SIDE SLOPE VERTICES
- ** HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
- ** IN LOOSE SOIL CONDITIONS, THE USED OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS

3 CHANNEL EROSION CONTROL MATTING DETAIL
SCALE: NONE



SLOPE PROTECTION INSTALLATION NOTES:

- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
- CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.
- IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
- INSTALL PRODUCT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

2 SLOPE PROTECTION EROSION CONTROL MATTING DETAIL
SCALE: NONE

CHANNEL INSTALLATION NOTES:

- INSTALL PRODUCT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED, DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH THE PAPER SIDE DOWN.
- BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4"(10") ON CENTER TO SECURE BLANKETS.
- FULL-LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (DEPENDING ON BLANKET TYPE) AND STAPLED TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED.
- IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30' TO 40' INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF CHANNEL.
- THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

ENGINEER

STATE OF NEW HAMPSHIRE
MARISA DEBONO
No. 12194
Professional Engineer
08/15/2015

DATE: SEPTEMBER 16, 2015

DESIGNED BY: MAD
CHECKED BY: WRD
DRAWN BY: MAD
PERMISSION OF THE PROJECT, WITHOUT THE WRITTEN PERMISSION OF HIA.

Peace International Tradeport Associates, Inc.
100 International Dr. #360, Portsmouth, NH 03801
Tel (603) 431-2920, Fax (603) 431-8067 Web: www.roylettanner.com
© Copyright 2015 Hoyle, Tanner & Associates, Inc.

SCALE: AS SHOWN

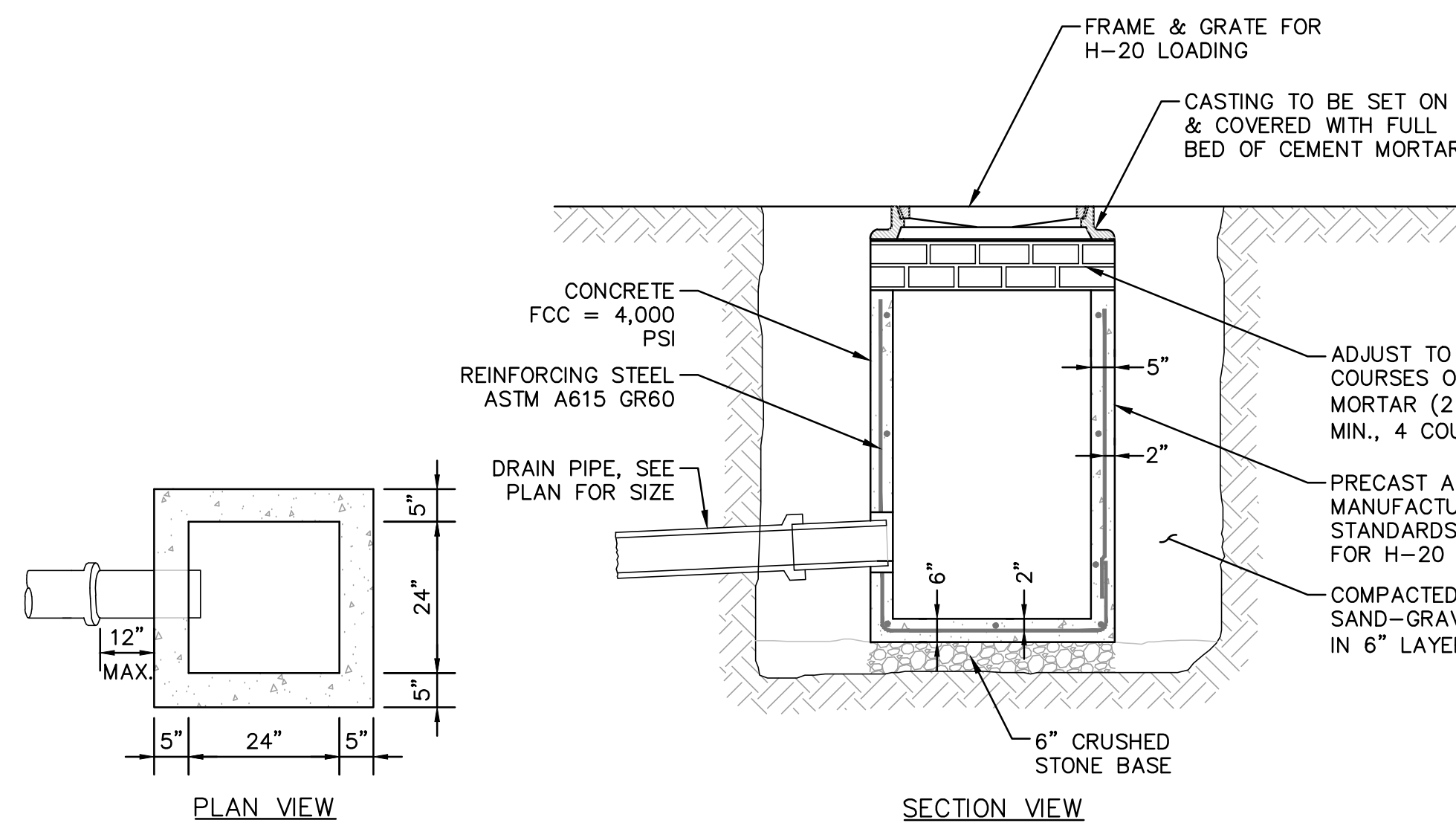
TOWN OF ALLENSTOWN
16 SCHOOL STREET
ALLENSTOWN, NH 03275

CLIENT: REYNOLDS AVENUE AREA DRAINAGE & ROADWAY IMPROVEMENTS
ALLENSTOWN, NH

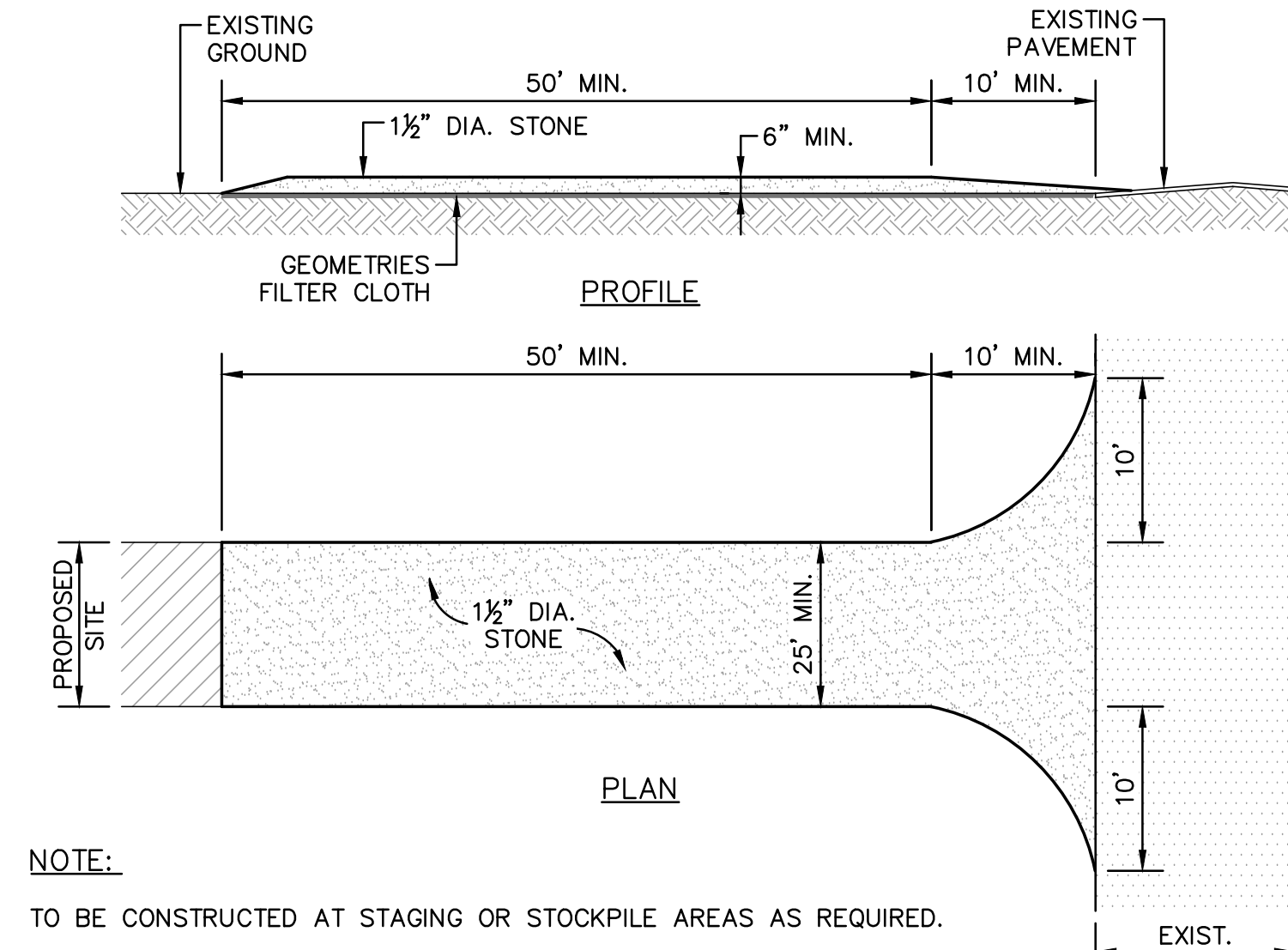
PROJECT: EROSION CONTROL NOTES & DETAILS

C8

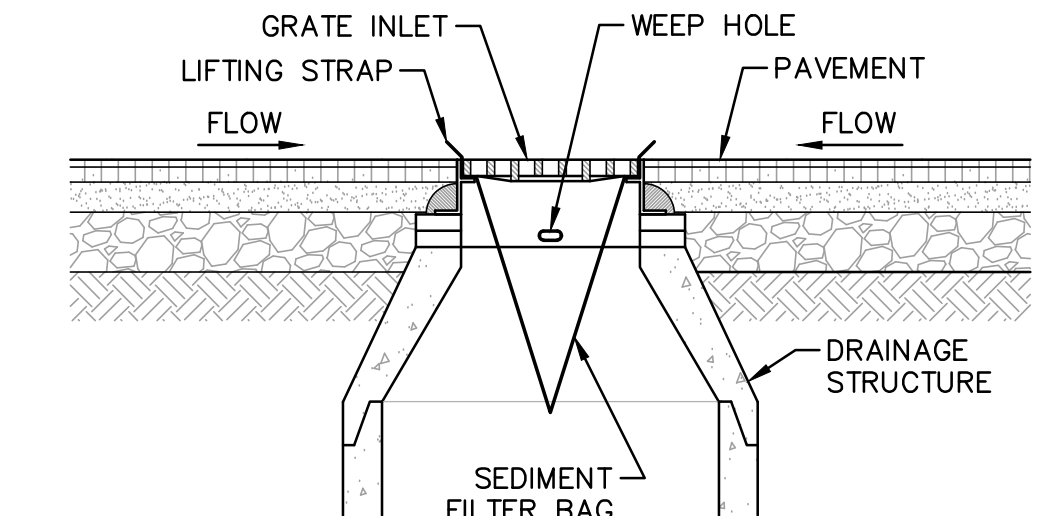
PROJECT NO. 562803
SHEET 8 OF 10



1 DROP INLET DETAIL
SCALE: NONE

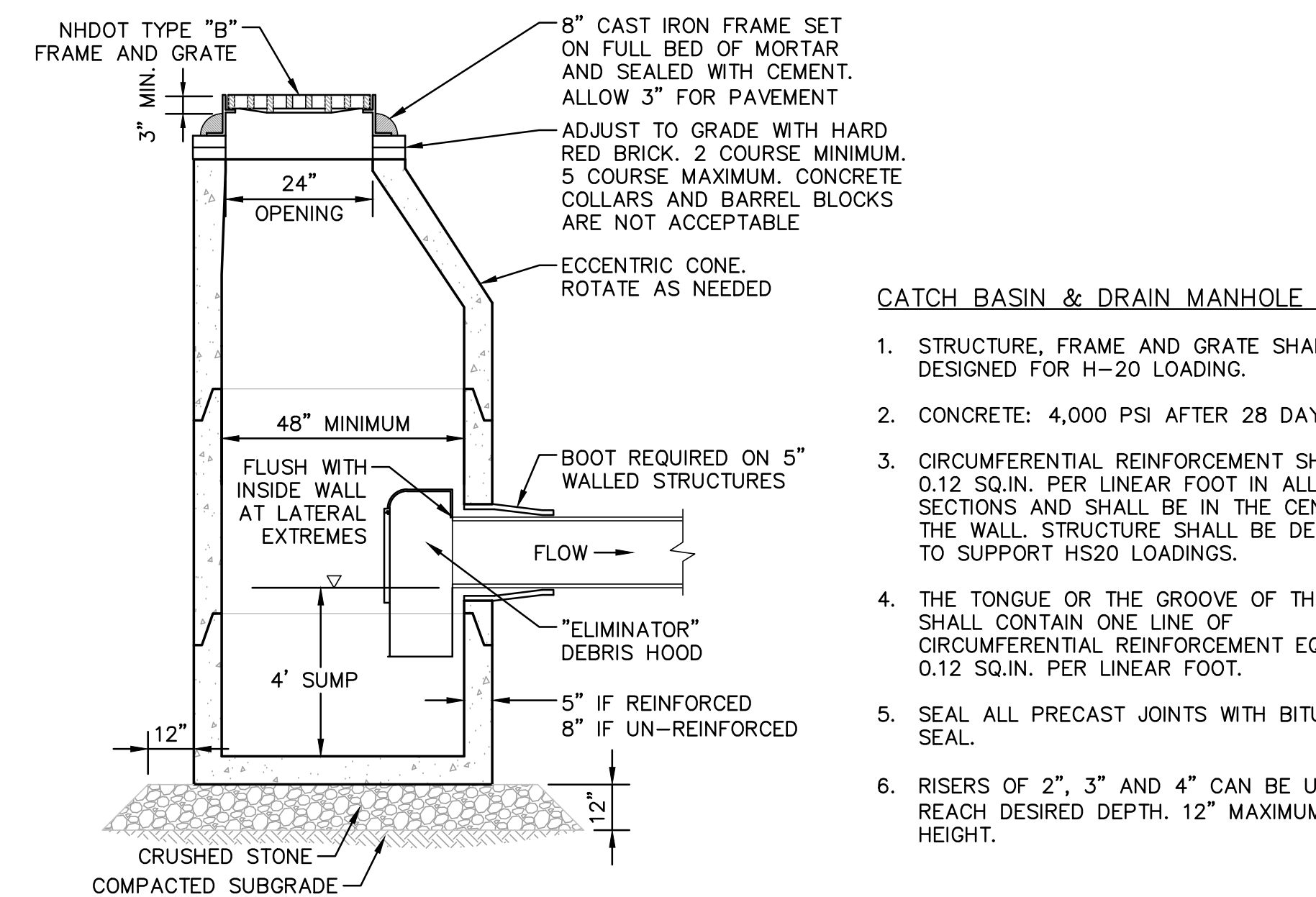


2 STABILIZED CONSTRUCTION ENTRY DETAIL
SCALE: NONE



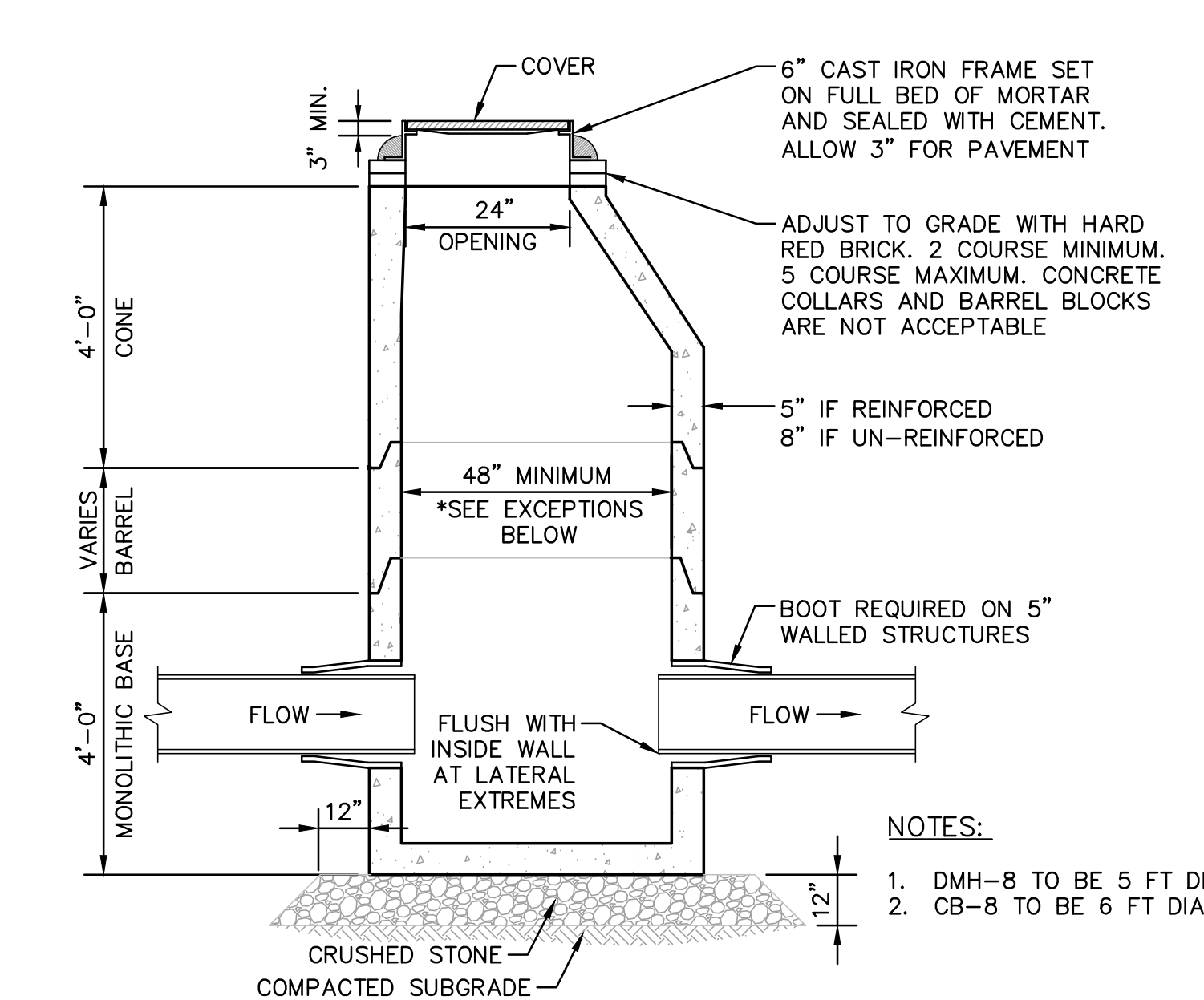
- INLET PROTECTION NOTES:**
1. THE SEDIMENT FILTER BAG SHALL BE DESIGNED FOR CATCH BASIN INLET PROTECTION. FILTER FABRIC IS NOT AN ACCEPTABLE SEDIMENT FILTER BAG.
 2. REMOVE DRAINAGE INLET GRATE AND PLACE SEDIMENT FILTER BAG AROUND THE FRAME, REPLACE GRATE AND SEDIMENT FILTER BAG IN POSITION OR FOLLOW MANUFACTURER'S RECOMMENDATIONS. LIFTING STRAPS SHALL BE EXPOSED AND READY FOR MAINTENANCE PROCEDURES.
 3. INSPECT SEDIMENT FILTER BAG WEEKLY AND AFTER EVERY RAINFALL EVENT.
 4. REPLACE, CLEAN OR REMOVE SEDIMENT FILTER BAG AS DIRECTED.

3 INLET PROTECTION DETAIL
SCALE: NONE



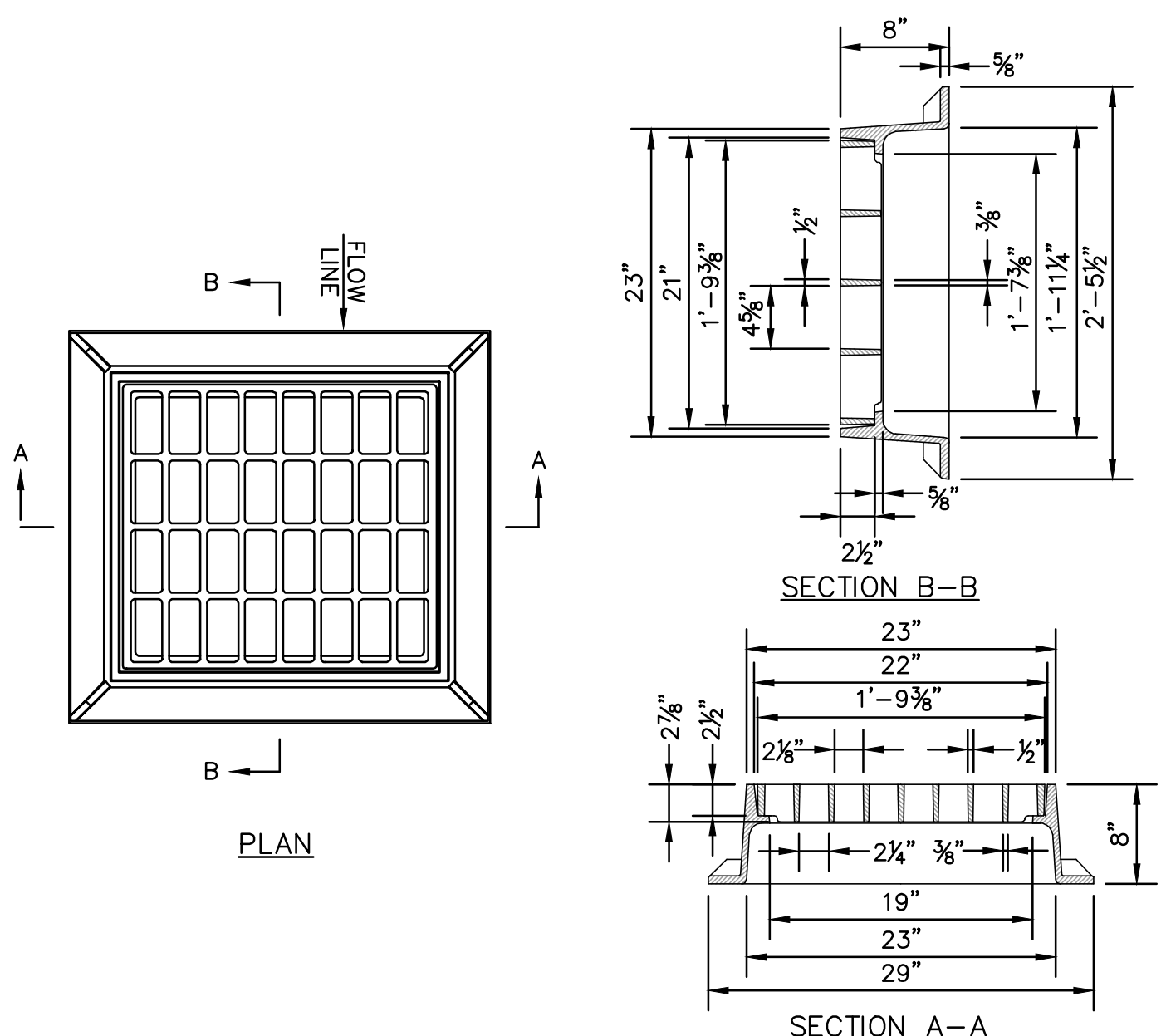
- CATCH BASIN & DRAIN MANHOLE NOTES:**
1. STRUCTURE, FRAME AND GRATE SHALL BE DESIGNED FOR H-20 LOADING.
 2. CONCRETE: 4,000 PSI AFTER 28 DAYS.
 3. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE IN THE CENTER OF THE WALL. STRUCTURE SHALL BE DESIGNED TO SUPPORT HS20 LOADINGS.
 4. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FOOT.
 5. SEAL ALL PRECAST JOINTS WITH BITUMASTIC SEAL.
 6. RISERS OF 2", 3" AND 4" CAN BE USED TO REACH DESIRED DEPTH. 12" MAXIMUM RISER HEIGHT.

4 DEEP SUMP CATCH BASIN DETAIL
SCALE: NONE

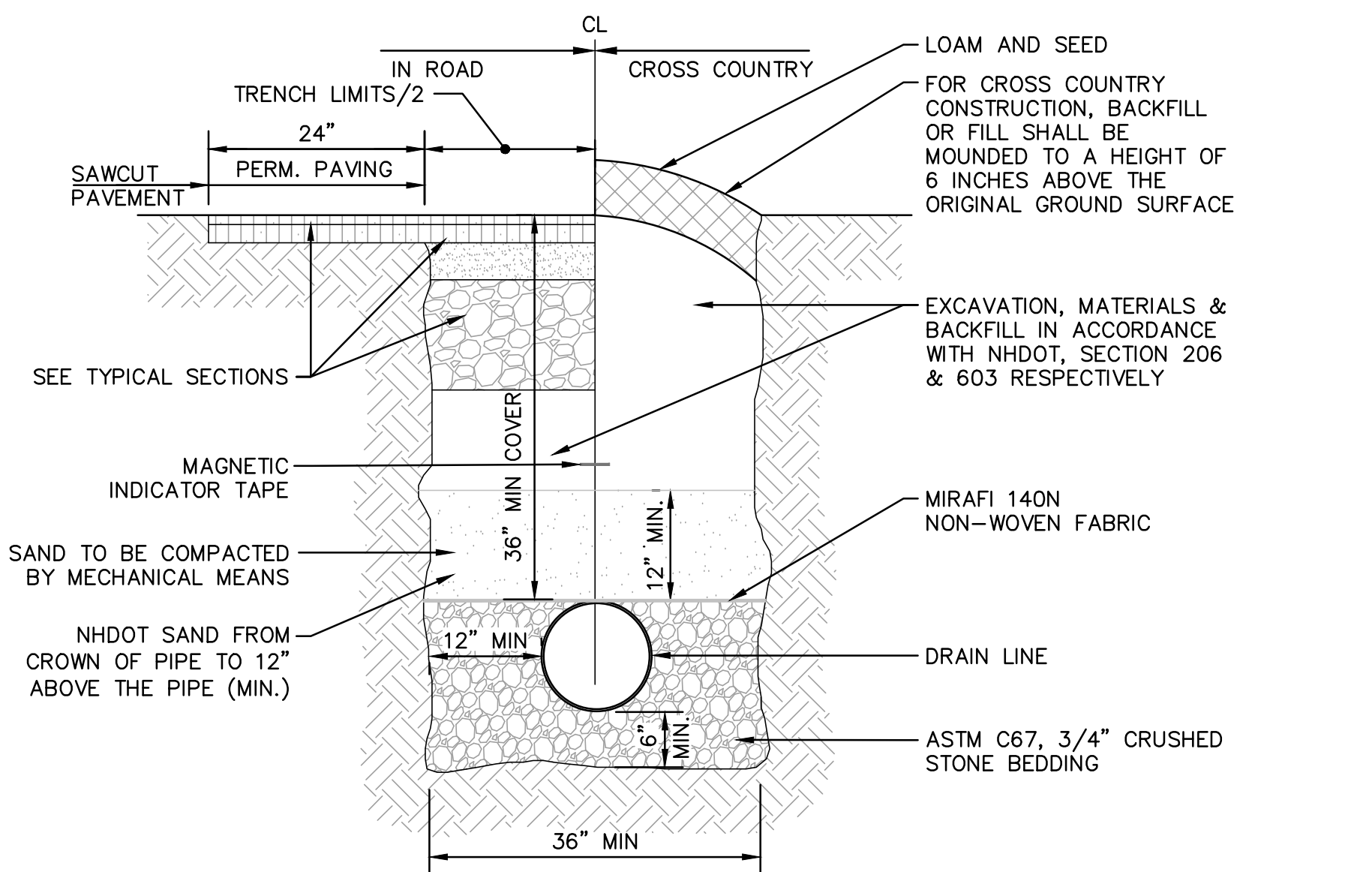


- NOTES:**
1. DMH-8 TO BE 5 FT DIAM.
 2. CB-8 TO BE 6 FT DIAM.

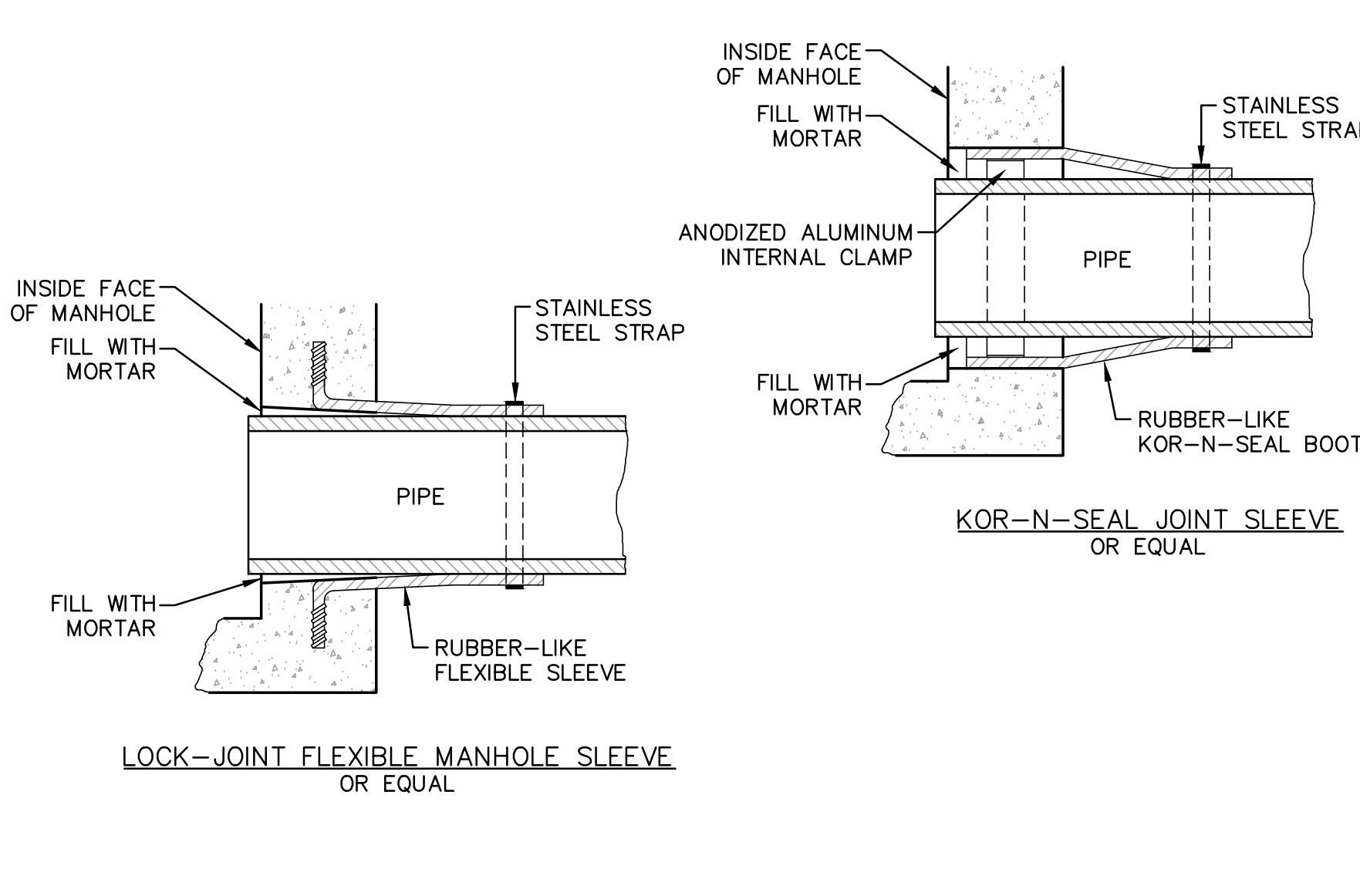
5 DRAIN MANHOLE DETAIL
SCALE: NONE



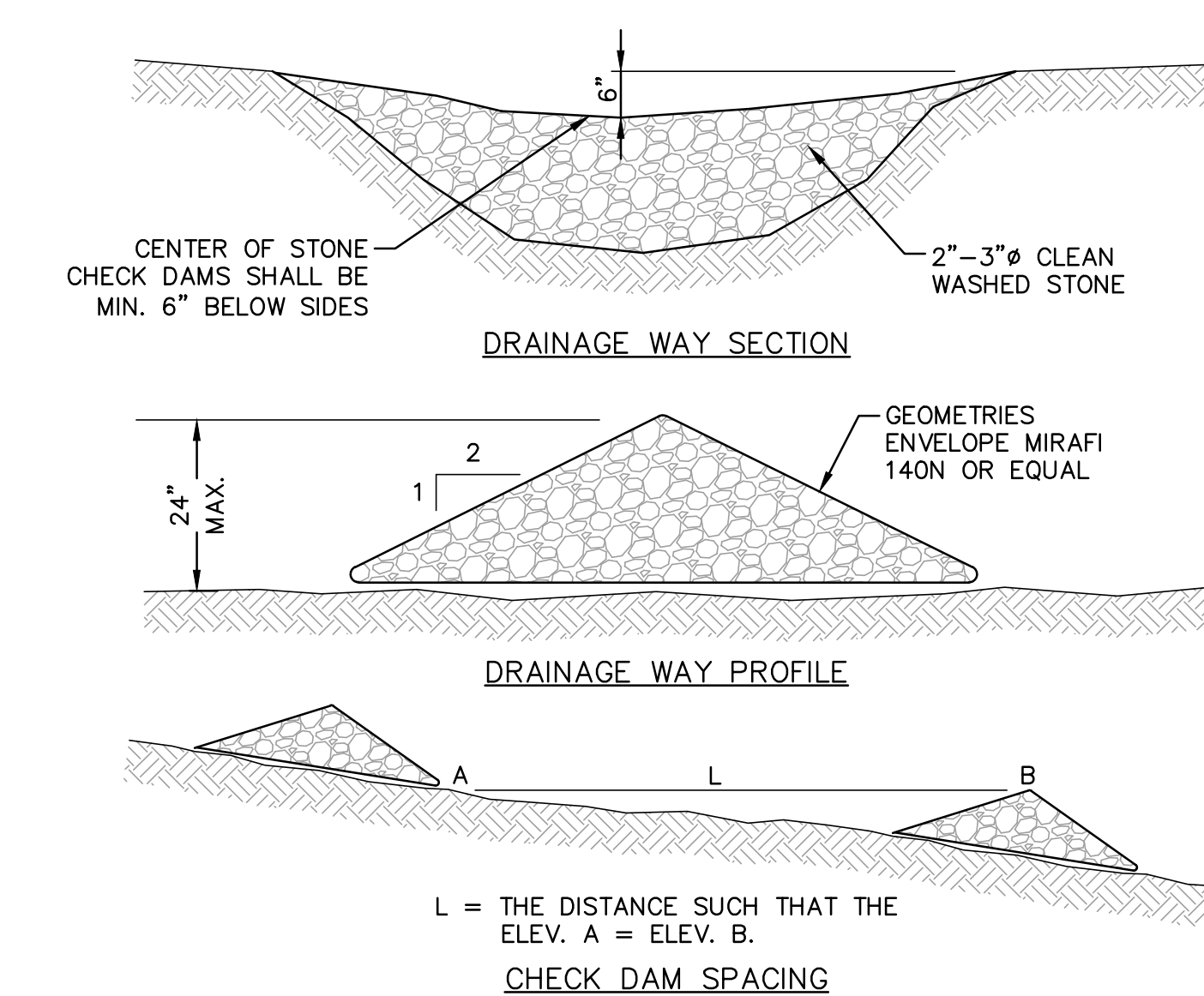
6 FRAME & GRATE TYPE "B" DETAIL
SCALE: NONE



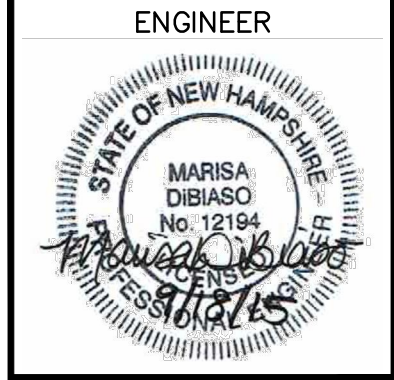
7 DRAIN TRENCH DETAIL
SCALE: NONE



8 TYPICAL PIPE TO MANHOLE DETAIL
SCALE: NONE



9 STONE CHECK DAM DETAIL
SCALE: NONE



REV.	REVISION DESCRIPTION	DATE

THIS DOCUMENT IS PREPARED AS AN INSTRUMENT OF SERVICE AND SHALL BE USED ONLY FOR THE PROJECT, REPRODUCED, DISSEMINATED OR TRANSMITTED IN ANY MANNER, INCLUDING ELECTRONIC, WITHOUT THE WRITTEN PERMISSION OF H.T.A.

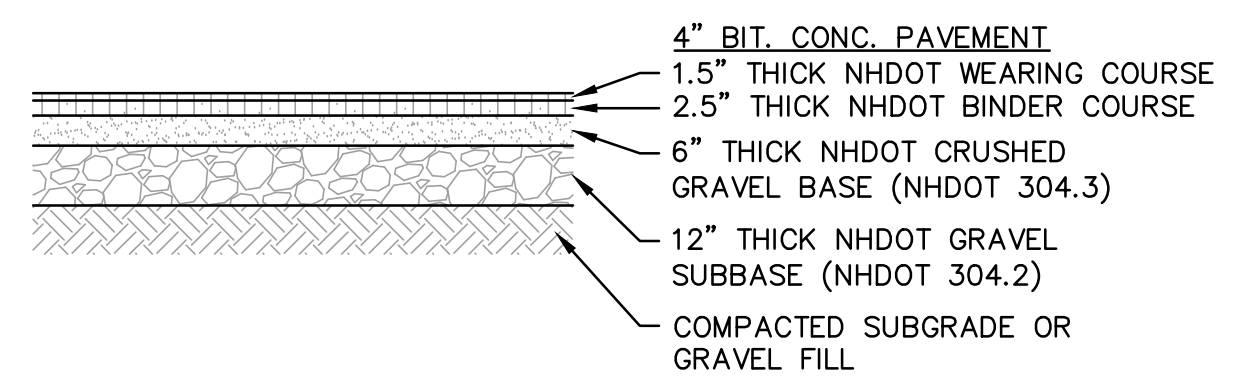
Peace International Tradeport
Hoyle, Tanner & Associates, Inc.
 100 International Dr., #360, Portsmouth, NH 03801
 Tel: (603) 431-2920 Fax: (603) 431-8067 Web: www.hoyletanner.com
 © Copyright 2015 Hoyle, Tanner & Associates, Inc.

DESIGNED BY: MAD
 CHECKED BY: WRD
 DATE: SEPTEMBER 16, 2015
 SCALE: AS SHOWN

CLIENT: TOWN OF ALLENSTOWN
 16 SCHOOL STREET
 ALLENSTOWN, NH 03275

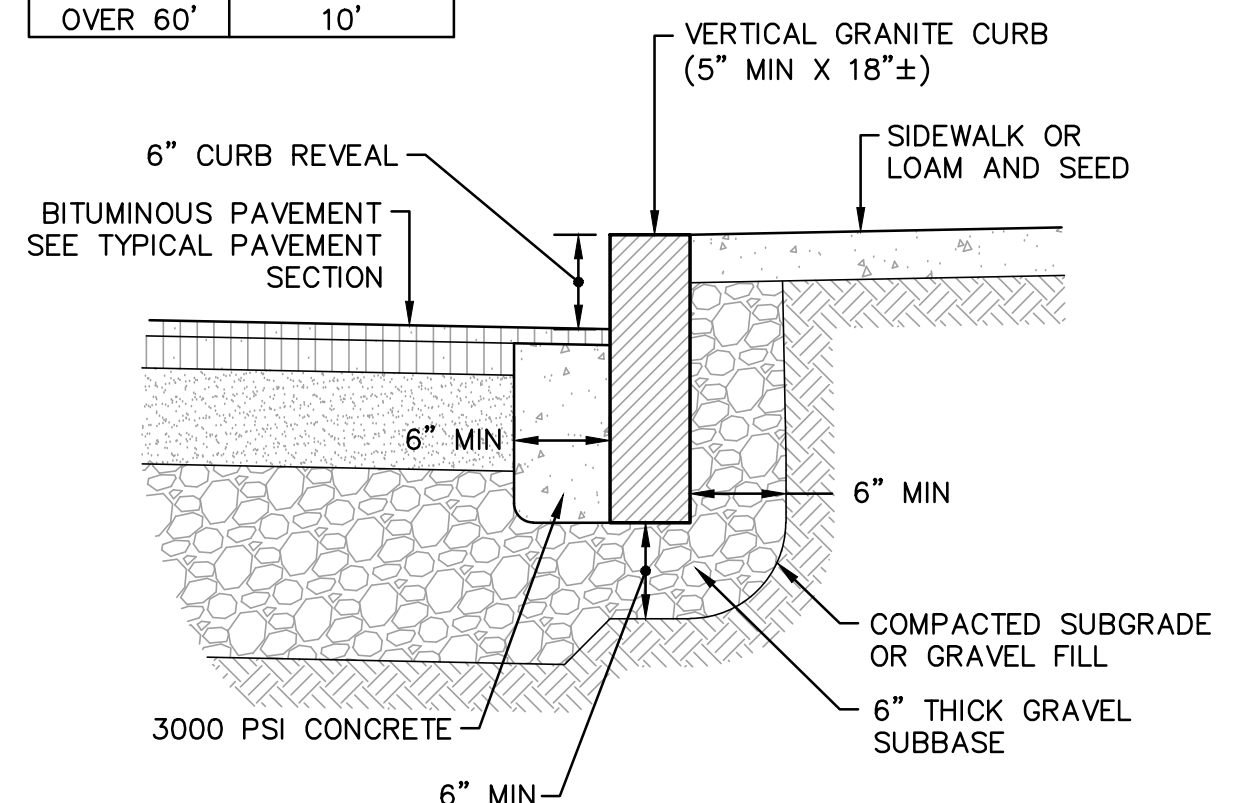
PROJECT: REYNOLDS AVENUE AREA DRAINAGE & ROADWAY IMPROVEMENTS
 ALLENSTOWN, NH

CONSTRUCTION DETAILS - 1
C9
 PROJECT NO. 562803
 SHEET 9 OF 10

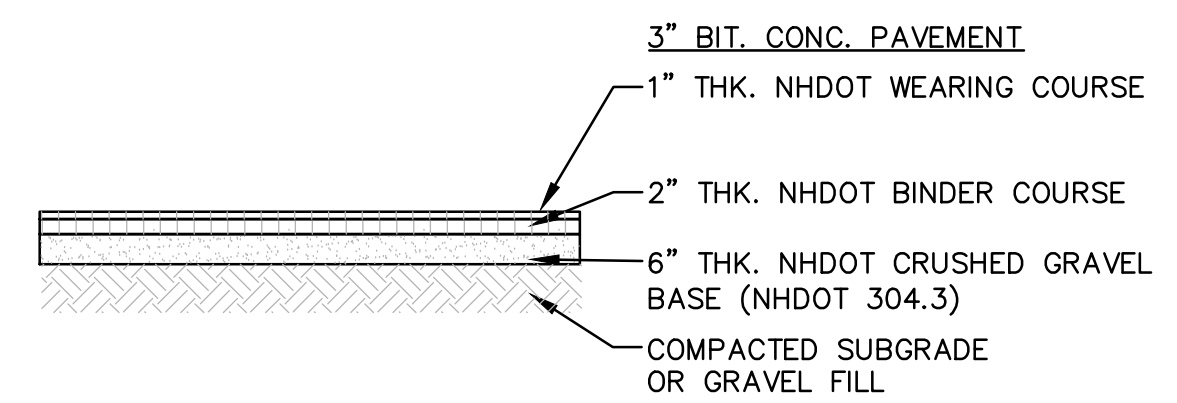


1 TYPICAL PAVEMENT SECTION
SCALE: NONE

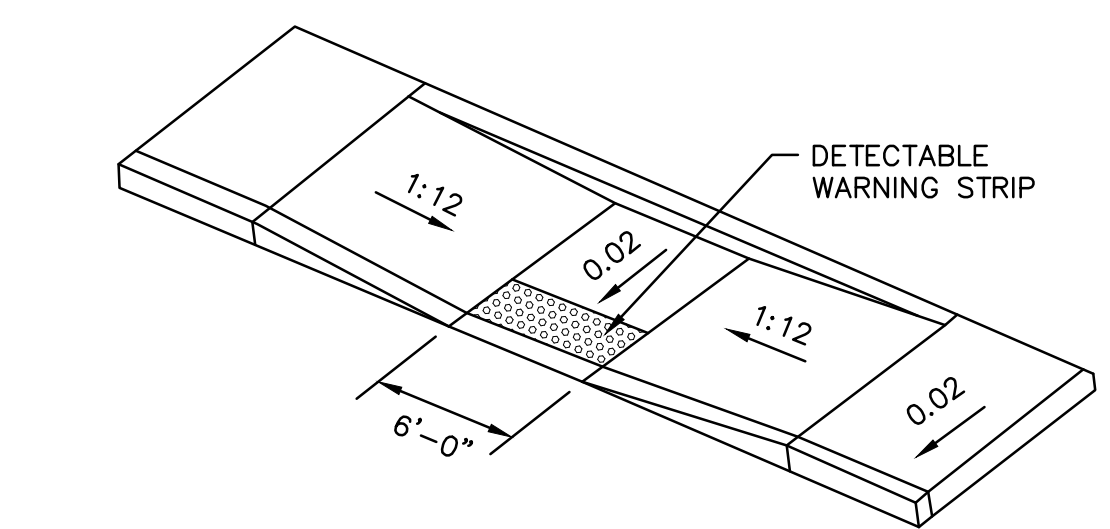
RADIUS	MAX LENGTH
21'	3'
22'-28'	4'
29'-35'	5'
36'-42'	6'
43'-49'	7'
50'-56'	8'
57'-60'	9'
OVER 60'	10'



3 VERTICAL GRANITE CURB DETAIL
SCALE: NONE

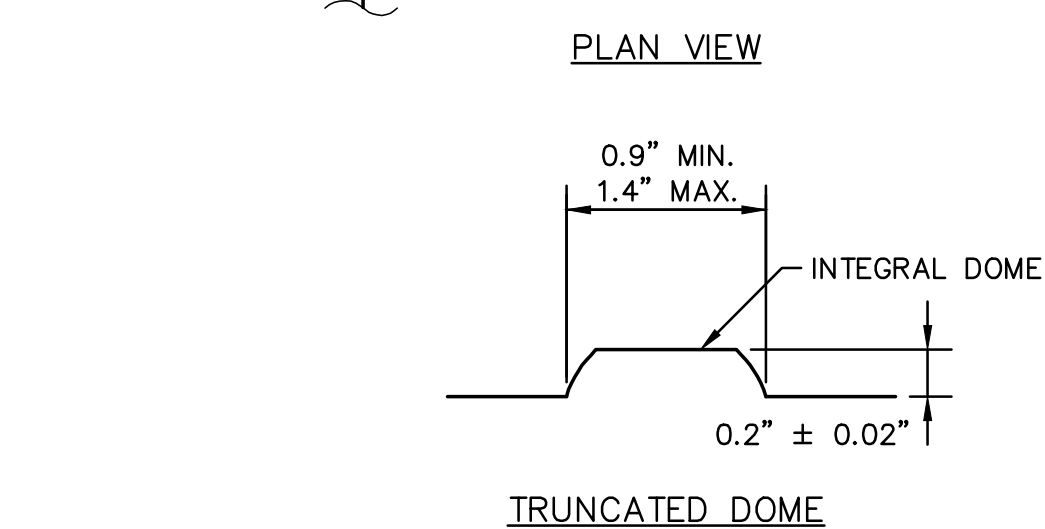
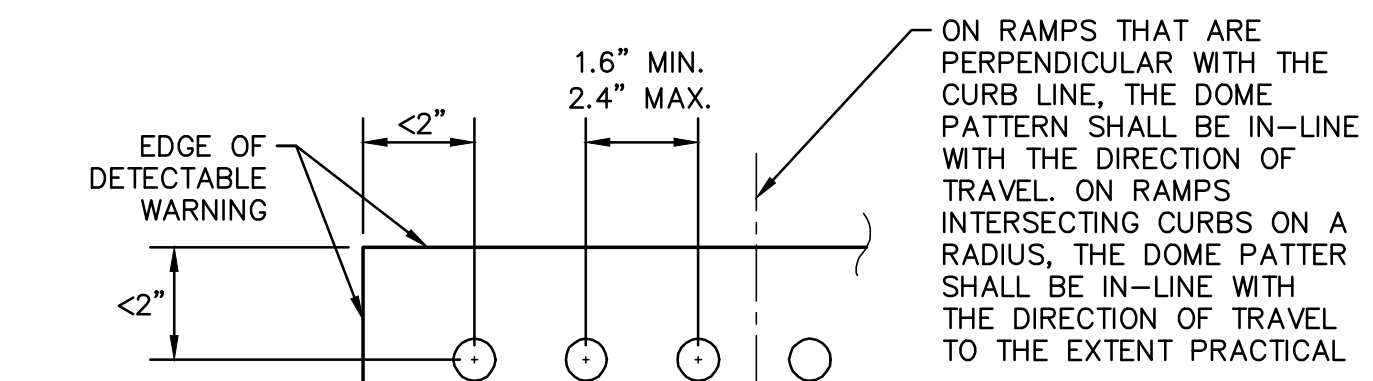


2 TYPICAL BITUMINOUS WALKWAY SECTION
SCALE: NONE



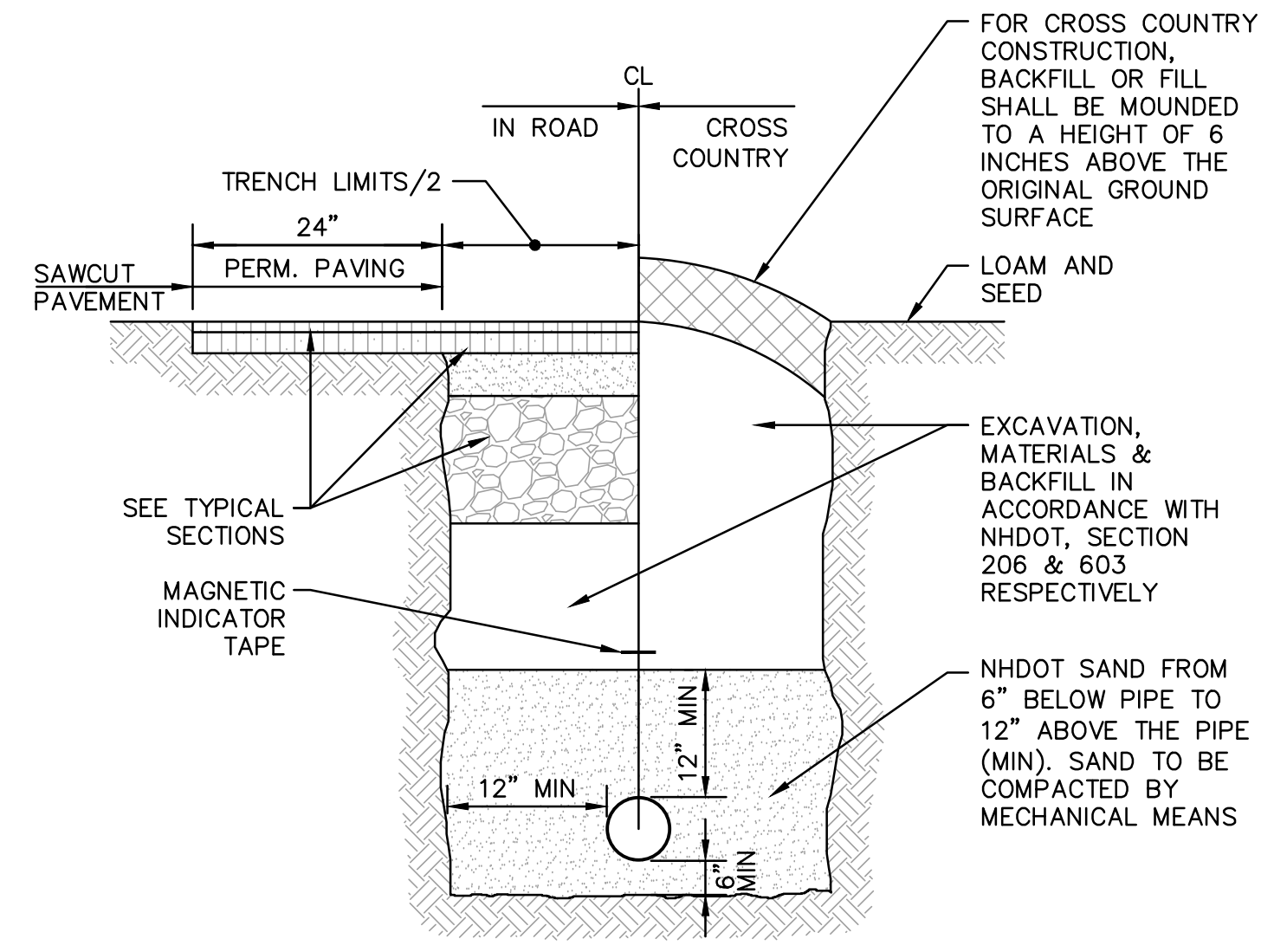
- SIDEWALK RAMP NOTES:**
1. SLOPE OF RAMP VARIES WITH SIDEWALK WIDTH AND HEIGHT, WITH A MAXIMUM SLOPE OF 1:12.
 2. AN ADA DETECTABLE WARNING TRUNCATED DOME FINISH TO TRANSVERSE TO THE SLOPE OF THE RAMP AND WARPED SIDEWALK SHALL BE USED ON ALL RAMP.
 3. MAINTAIN THE NORMAL GUTTER PROFILE THROUGHOUT THE RAMP AREA.
 4. INTERCEPT DRAINAGE ALONG THE CURB IN ADVANCE OF THE RAMP.
 5. FORM 1" (+1/8" TOLERANCE) CURB LIP IN SIDEWALK PAVING MATERIAL.

6 HANDICAP SIDEWALK RAMPS
SCALE: NONE



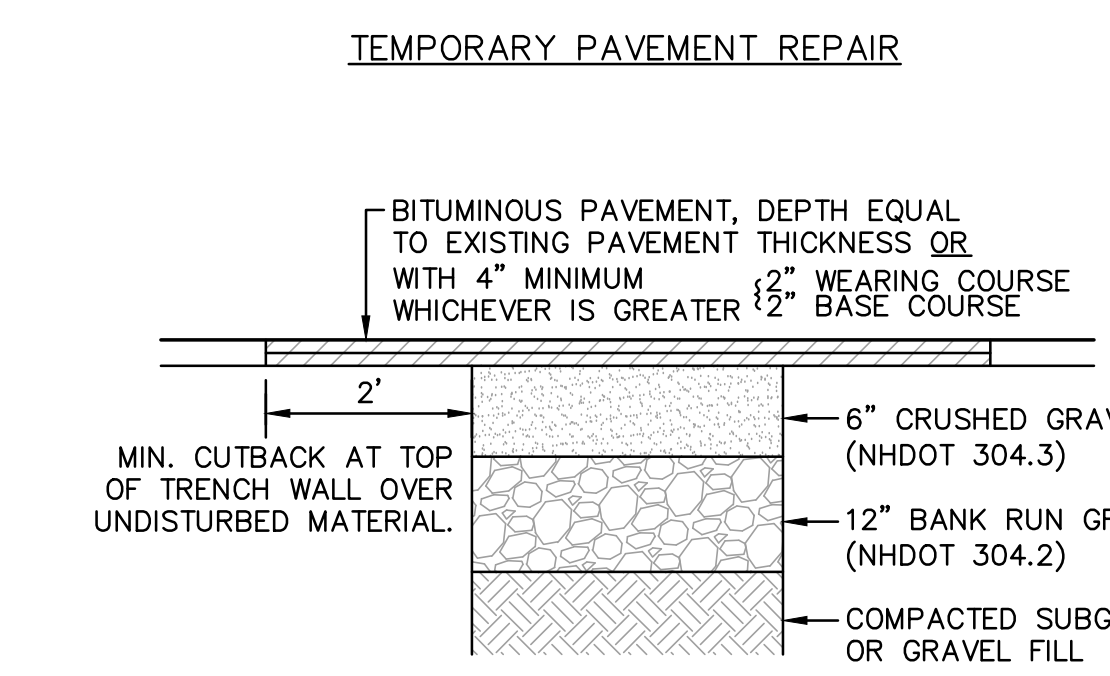
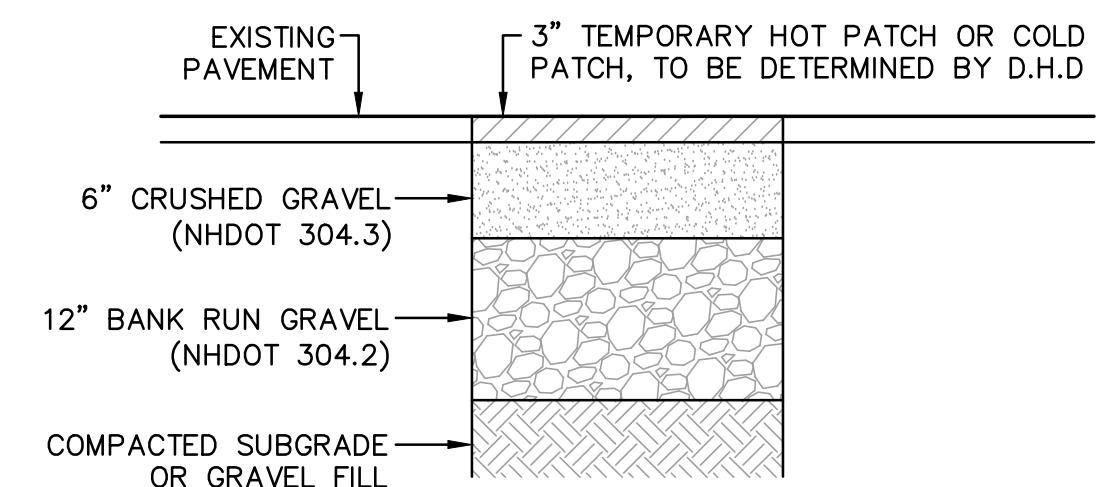
- DETECTABLE WARNING NOTES:**
1. BASE-TO-BASE SPACING SHALL BE 0.65" MINIMUM BETWEEN DOMES.
 2. ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24 INCHES FROM THE BACK OF CURB.
 3. THE TOP WIDTH OF THE DOME SHALL BE A MINIMUM OF 50% AND A MAXIMUM OF 65% OF THE BASE DIAMETER.
 4. WARNING PANELS TO BE CAST IRON.

7 TYPICAL DETECTABLE WARNING DETAILS
SCALE: NONE



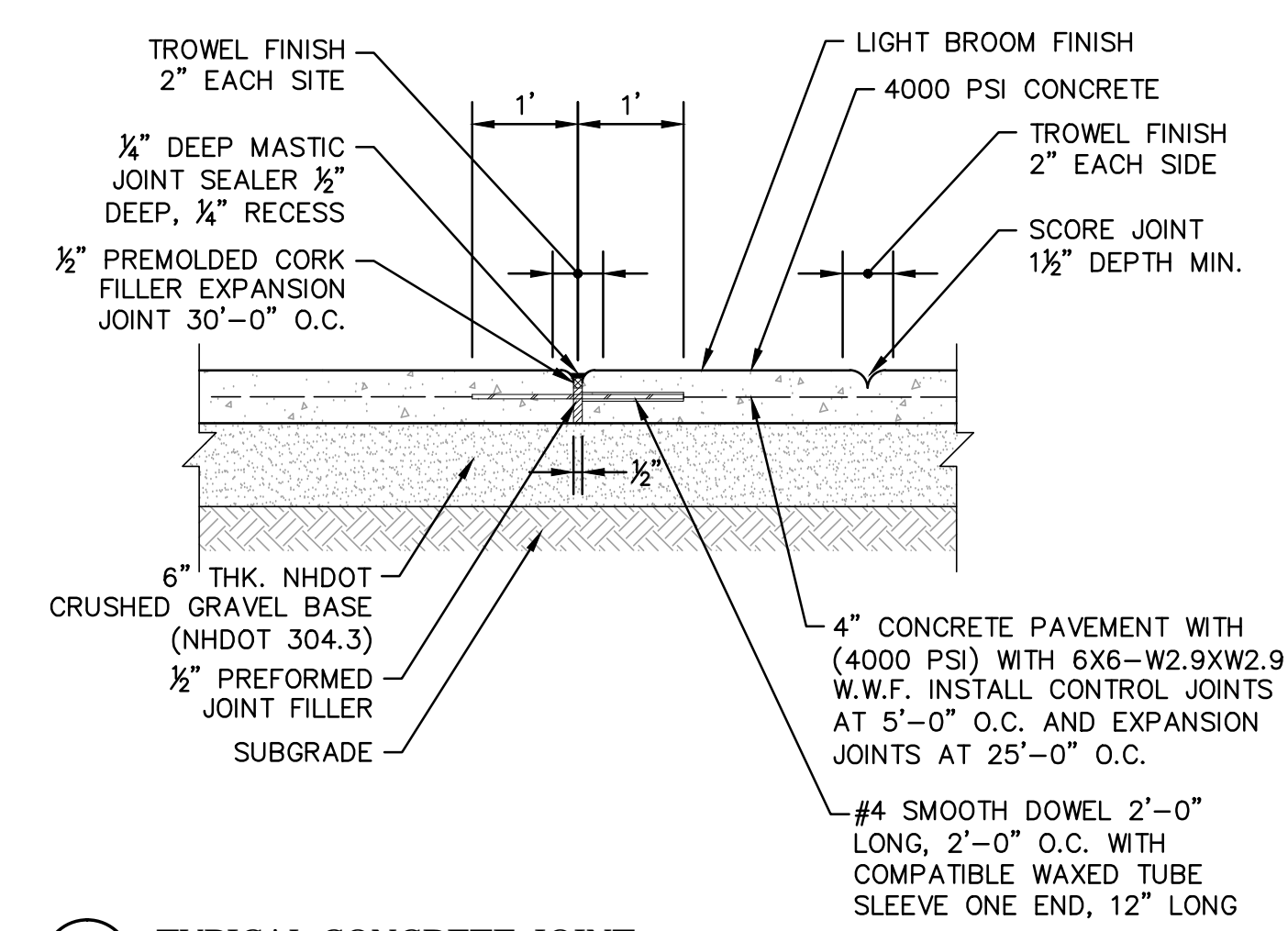
- TRENCH NOTES:**
1. ELECTRICAL CONDUIT SHALL BE SCHEDULE 40 PVC AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF NEMA TC-2-1990 AND BE UL LISTED.
 2. ALL PVC CONDUIT JOINTS SHALL BE CEMENTED.
 3. A SUITABLE PULL CABLE, CAPABLE OF 200 POUNDS OF PULL, MUST BE INSTALLED IN THE ELECTRICAL CONDUIT.
 4. COORDINATE SIZE OF CONDUIT WITH OWNER.
 5. DEPTH OF CONDUIT SHALL BE 36" TO INVERT.

4 ELECTRICAL/GAS TRENCH DETAIL
SCALE: NONE



- PAVEMENT REPAIR NOTES:**
1. MATERIALS SHOULD BE REPLACED IN-KIND, WITH MINIMUM THICKNESS AS SHOWN.
 2. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REQUIREMENTS.
 3. ROADWAY CONSTRUCTION SHALL CONFORM TO NHDOT STANDARD SPECIFICATIONS.
 4. NOT FOR WINTER CONSTRUCTION.

8 PAVEMENT REPAIR DETAILS
SCALE: NONE



5 TYPICAL CONCRETE JOINT
SCALE: NONE

ENGINEER		DATE	
DESIGNED BY		CHECKED BY	
DRAWN BY		WRD	
MAD		MAD	
DATE: SEPTEMBER 16, 2015		REVISION DESCRIPTION	
SCALE: AS SHOWN		REV.	
<p>THIS DOCUMENT IS PREPARED AS AN INSTRUMENT OF SERVICE AND SHALL BE USED ONLY FOR THE PROJECT, IN THE MANNER AND FOR THE PURPOSE SPECIFIED IN THE WRITTEN PERMISSION OF H.T.A. IT MAY NOT BE REPRODUCED, DISSEMINATED OR TRANSMITTED IN ANY MANNER, INCLUDING ELECTRONIC, WITHOUT THE WRITTEN PERMISSION OF H.T.A.</p>			
<p>Peace International Tradeport Hoyle, Tanner & Associates, Inc. 100 International Dr., #360, Portsmouth, NH 03801 Tel: (603) 431-2520, Fax: (603) 431-8067 Web: www.hoyletanner.com © Copyright 2015 Hoyle, Tanner & Associates, Inc.</p>			
CLIENT		PROJECT	
TOWN OF ALLENSTOWN 16 SCHOOL STREET ALLENSTOWN, NH 03275		REYNOLDS AVENUE AREA DRAINAGE & ROADWAY IMPROVEMENTS ALLENSTOWN, NH	
CONSTRUCTION DETAILS - 2			
C10			
PROJECT NO. 562803			
SHEET 10 OF 10			