

GENERAL NOTES

- EXACT OBJECT LOCATIONS MAY DIFFER FROM THAT AS SHOWN, AND ADDITIONAL SUB-SURFACE AND SURFACE UTILITIES AND STRUCTURES MAY EXIST. THE CONTRACTOR IS TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK AND TO CALL DIG SAFE 72 HOURS PRIOR TO ANY DIGGING, DRILLING OR BLASTING.
- THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL FROM THE ENGINEER.
- THE CONTRACTOR IS INSTRUCTED TO COOPERATE WITH ANY AND ALL OTHER CONTRACTORS PERFORMING WORK ON THIS JOB SITE DURING THE PERFORMANCE OF THIS CONTRACT.
- THE CONTRACTOR SHALL RESTORE LAWNS, DRIVEWAYS, CULVERTS, SIGNS AND OTHER PUBLIC OR PRIVATE PROPERTY DAMAGED OR REMOVED TO EXISTING CONDITIONS OR BETTER AS DETERMINED BY THE ENGINEER. ANY DAMAGED TREES, SHRUBS AND/OR HEDGES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE, UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS.
- THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING, AND INCURRING THE COST OF ALL REQUIRED PERMITS, INSPECTIONS, AND CERTIFICATES.
- THE CONTRACTOR WILL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE ENGINEER OR OWNER SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE UNDER THE SUPERVISION OF A NEW YORK STATE LICENSED LAND SURVEYOR.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL PLAN SHEETS AND SPECIFICATIONS, AND COORDINATE WORK WITH ALL CONTRACTS FOR THE SITE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT EXPLORATORY TEST PITS AS MAY BE REQUIRED TO DETERMINE UNDERGROUND CONDITIONS.
- ALL TRENCH EXCAVATION AND ANY REQUIRED SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH THE LATEST OSHA AND NYS DEPARTMENT OF LABOR REGULATIONS FOR CONSTRUCTION. EXCAVATION/BACKFILL ADJACENT TO EXISTING FOUNDATIONS AND BUILDINGS SHALL NOT EXTEND BELOW OR ABOVE THE EXISTING GRADE(S) OF SAID STRUCTURE(S) WITHOUT ADEQUATE SHEETING, BRACING, SHORING AND/OR UNDERPINNING DESIGNED BY A NYS LICENSED PROFESSIONAL ENGINEER. ALL PREPARED DESIGNS AND CALCULATIONS SHALL BE SUBMITTED WITH THE GRADING PERMIT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF WORK.
- MAINTAIN FLOW FOR ALL EXISTING UTILITIES, UNLESS NOTED OTHERWISE.
- ALL SITE FILL SHALL MEET SELECTED FILL STANDARDS UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- CONTRACTOR TO GRADE ALL AREAS ON THE SITE TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND IMPERVIOUS SURFACES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL FIELD LAYOUT. THE CONTRACTOR SHALL PROVIDE MARKED-UP AS-BUILT PLANS FOR ALL UTILITIES SHOWING CONNECTIONS, BENDS, VALVES, LENGTHS OF LINES AND INVERTS. AS-BUILT PLANS SHALL BE REVIEWED BY THE OWNER AND HIS REPRESENTATIVES BEFORE UTILITIES WILL BE ACCEPTED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION, MONITORING, MAINTENANCE AND REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES AND TAKING PRECAUTIONARY STEPS TO AVOID ANY SEDIMENT TRANSFER TO NEIGHBORING SITES OR WATERS OF THE STATE.
- GRADING PERMIT IS REQUIRED BY THE CITY ENGINEERING DEPARTMENT PRIOR TO THE START OF DEMOLITION. CONTACT PATRICK MCCUTCHEON AT (518) 434-2387. CONTRACTOR TO APPLY, BOND TO BE INCLUDED.
- STREET OPENING PERMITS ARE REQUIRED BY DEPARTMENT OF GENERAL SERVICES FOR ANY WORK WITHIN THE CITY'S R.O.W. CONTACT GARY BOHL AT (518) 462-3519. CONTRACTOR TO APPLY.
- R.O.W. ACCESS APPLICATION (CURB CUT / DRIVEWAY) ARE REQUIRED BY THE DEPARTMENT OF GENERAL SERVICES. CONTACT GARY BOHL AT (518) 462-3519. PROPERTY OWNER TO APPLY.
- GUY LINES FOR RELOCATED UTILITY POLES SHALL NOT BE LOCATED IN THE SIDEWALK PROPER. GUY LINES MUST BE LOCATED IN THE MAINTENANCE / PAVER STRIP.
- THE PROPERTY OWNER SHALL CONTRACT WITH THE CITY OF ALBANY FOR ALL STEPS, STAIRS, PLANTERS AND BUILDING OVERHANGS WITHIN THE CITY'S R.O.W.
- THE CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY ENGINEERING DEPARTMENT IF SPOILS FROM THE SITE ARE DEPOSITED WITHIN THE CITY OF ALBANY.
- SIDEWALK CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 28-DAYS.
- HYDROSTATIC AND LEAKAGE TEST TO BE WITNESSED BY ALBANY WATER DEPARTMENT STAFF. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 48-HOURS NOTICE PRIOR TO PERFORMANCE OF THE TESTS.
- RESULTS OF THE CHLORINATION OF THE DOMESTIC WATERLINE SHALL BE PROVIDE TO THE ALBANY WATER DEPARTMENT. WATER SERVICE SHALL NOT BE PLACED INTO SERVICE WITHOUT PRIOR APPROVAL OF THE ALBANY WATER DEPARTMENT STAFF.
- A FULL TIME GEOTECHNICAL INSPECTOR SHALL BE ONSITE FOR OBSERVATION AND RECOMMENDATIONS DURING ALL SITE WORK, UTILITY INSTALLATIONS, SHEETING, BRACING, SHORING AND/OR UNDERPINNING WHILE BUILDING AND SITE EXCAVATION/BACKFILL OPERATIONS ARE UNDERWAY.

SURVEY NOTES

- EXISTING PHYSICAL FEATURES AND TOPOGRAPHY SHOWN HEREIN ARE BASED ON PLAN, PROVIDED BY THE PROPERTY OWNER, ENTITLED "PROPOSED SITE PLAN 22 HOLLAND ROAD", PREPARED BY HERSHBERG AND HERSHBERG CONSULTING ENGINEERS AND LAND SURVEYORS, AND DATED 7/30/2018. AN UPDATED SURVEY IS UNDERWAY AND ANTICIPATED WITH COMPLETION IN FEBRUARY 2021.
- ENGINEERING VENTURES HAS NOT PERFORMED ANY BOUNDARY OR TOPOGRAPHIC SURVEYS. THE PROPERTY LINES, EASEMENTS, AND OTHER REAL PROPERTY DESCRIPTIONS PROVIDED ON THESE PLANS DO NOT DEFINE LEGAL RIGHTS OR MEET LEGAL REQUIREMENTS FOR A LAND SURVEY AS DESCRIBED IN NY STATUTES, AND SHALL NOT BE USED AS THE BASIS OF ANY LAND TRANSFER OR ESTABLISHMENT OF ANY PROPERTY RIGHT.
- UTILITIES SHOWN DO NOT PURPORT TO CONSTITUTE OR REPRESENT ALL UTILITIES LOCATED UPON OR ADJACENT TO THE SURVEYED PREMISES. EXISTING UTILITIES SHOWN ON PLANS WERE TAKEN FROM FIELD OBSERVATIONS OF VISIBLE UTILITIES AND PREVIOUS MAPS AND RECORD UTILITY DRAWINGS AND NOT GUARANTEED TO BE ACCURATE OR COMPLETE. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING UTILITY LOCATIONS PRIOR TO COMMENCING WORK. NOTIFY ENGINEER OF ANY DISCREPANCY BETWEEN UTILITIES AS SHOWN AND AS FOUND. THE CONTRACTOR SHALL CONTACT DIG SAFE (811 OR 888-344-7233) A MINIMUM OF 72 HOURS, BUT NOT INCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, PRIOR TO ANY CONSTRUCTION.

SYMBOL LEGEND

PROPOSED FEATURES	EXISTING FEATURES
BOUND	BOUND
BENCHMARK	BENCHMARK
DRILL HOLE	DRILL HOLE
SURVEY POINT	SURVEY POINT
IRON PIN	IRON PIN
TP1	TP1
TEST PIT	TEST PIT
BORING	BORING
PERC TEST	PERC TEST
CATCH BASIN (SQUARE)	CATCH BASIN (SQUARE)
CATCH BASIN (ROUND)	CATCH BASIN (ROUND)
HEADWALL	HEADWALL
FLARED END SECTION	FLARED END SECTION
STONE APRON	STONE APRON
DRAIN MANHOLE (DMH)	DRAIN MANHOLE (DMH)
DRAINAGE CLEAN OUT	DRAINAGE CLEAN OUT
SANITARY SEWER MANHOLE (SMH)	SANITARY SEWER MANHOLE (SMH)
SANITARY CLEAN OUT	SANITARY CLEAN OUT
HYDRANT	HYDRANT
WATER SHUTOFF	WATER SHUTOFF
TAPPING SLEEVE & VALVE	TAPPING SLEEVE & VALVE
GATE VALVE	GATE VALVE
WELL	WELL
UTILITY POLE	UTILITY POLE
GUY POLE	GUY POLE
ELECTRICAL MANHOLE	ELECTRICAL MANHOLE
FLOOD LIGHT	FLOOD LIGHT
LIGHT POST	LIGHT POST
TELEPHONE MANHOLE	TELEPHONE MANHOLE
NATURAL GAS MANHOLE	NATURAL GAS MANHOLE
COMMUNICATION MANHOLE	COMMUNICATION MANHOLE
BOLLARD	BOLLARD
SINGLE POLE SIGN	SINGLE POLE SIGN
DOUBLE POLE SIGN	DOUBLE POLE SIGN
SPOT ELEVATION	SPOT ELEVATION
ACCESSIBLE PARKING STALL	ACCESSIBLE PARKING STALL
DRAINAGE FLOW	DRAINAGE FLOW
DECIDUOUS TREE	DECIDUOUS TREE
CONIFEROUS TREE	CONIFEROUS TREE

26B

NRCS SOIL CLASSIFICATION

LINETYPE LEGEND

PROPOSED FEATURES	EXISTING FEATURES
100 MAJOR CONTOUR	100 MAJOR CONTOUR
98 MINOR CONTOUR	98 MINOR CONTOUR
PROPERTY LINE	PROPERTY LINE
SETBACK	SETBACK
EASEMENT	EASEMENT
CENTERLINE	CENTERLINE
EDGE OF PAVEMENT	EDGE OF PAVEMENT
EDGE OF GRAVEL	EDGE OF GRAVEL
EDGE OF CONCRETE	EDGE OF CONCRETE
CURB	CURB
FENCE (BARBED WIRE)	FENCE (BARBED WIRE)
FENCE (CHAIN LINK)	FENCE (CHAIN LINK)
FENCE (WOODEN)	FENCE (WOODEN)
GUARD RAIL	GUARD RAIL
TREE LINE	TREE LINE
STONE WALL	STONE WALL
SANITARY SEWER	SANITARY SEWER
SEWER FORCEMAIN	SEWER FORCEMAIN
STORM LINE	STORM LINE
UNDER DRAIN	UNDER DRAIN
FOUNDATION DRAIN	FOUNDATION DRAIN
ROOF DRAIN	ROOF DRAIN
DITCH/SWALE	DITCH/SWALE
UNDERGROUND TELECOMM	UNDERGROUND TELECOMM
OVERHEAD TELECOMM	OVERHEAD TELECOMM
UNDERGROUND ELECTRIC	UNDERGROUND ELECTRIC
OVERHEAD ELECTRIC	OVERHEAD ELECTRIC
WATER LINE	WATER LINE
NRCS SOIL BOUNDARY	NRCS SOIL BOUNDARY

SHEET TITLE:

PROJECT:

DRAWN BY:

DATE:

SCALE:

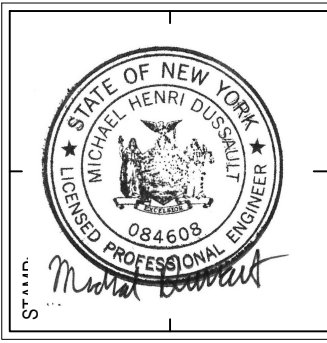
JOB NO.:

SHEET:

C0.1

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FEBRUARY 12, 2021

PLOT DATE: 2/12/2021 9:00 AM



REVISION DESCRIPTION	DATE	CONSULTANT
No.		

SITE LEGEND AND NOTES

New Construction

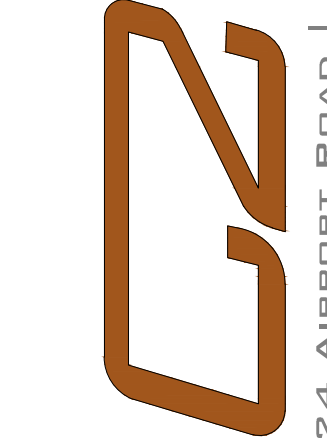
Hackett Boulevard Apartments

Albany, NY 12209

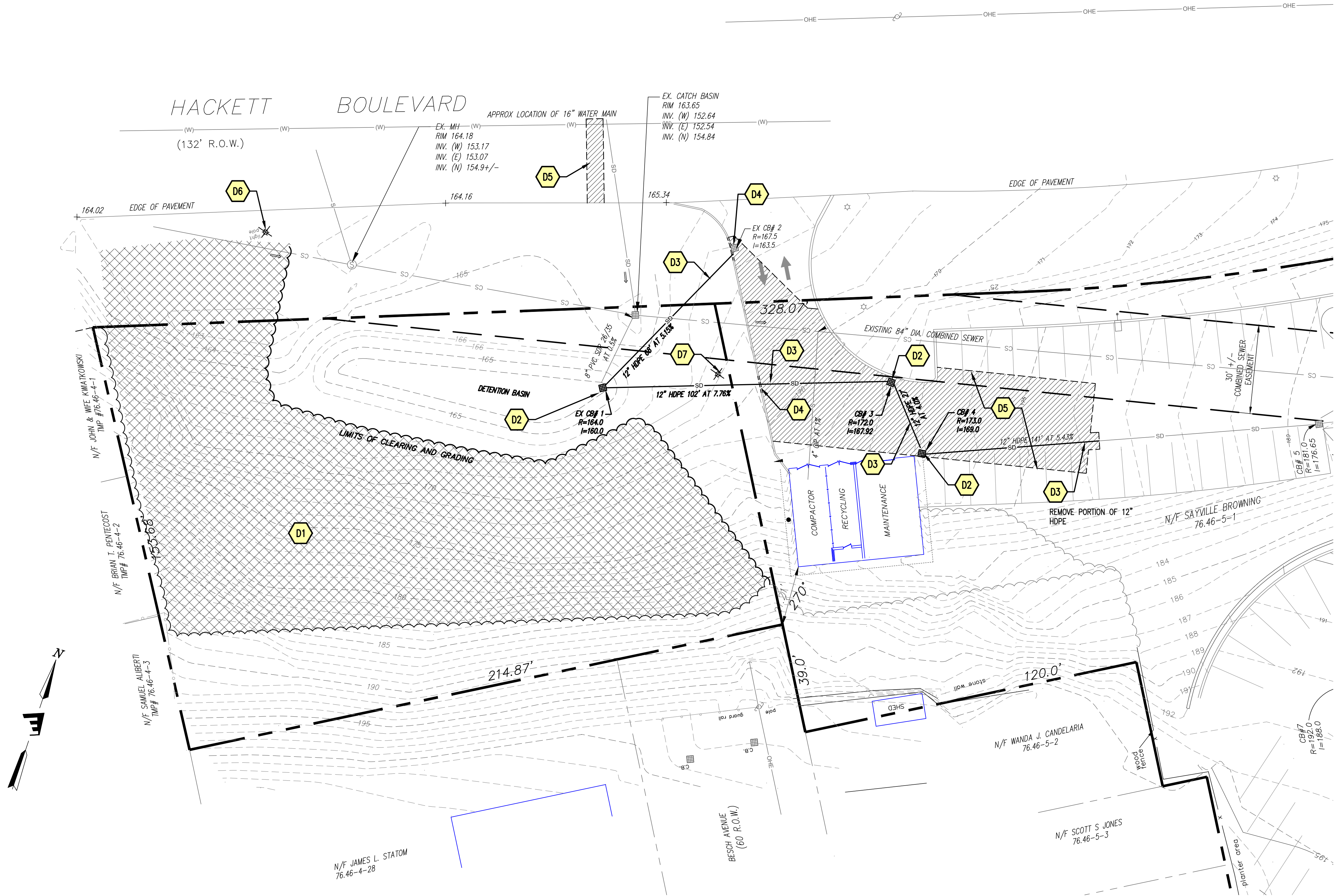
42 Basco Avenue

DRAWN BY:	MJD
DATE:	2/12/2021
SCALE:	AS NOTED
JOB NO.:	EV# 20483
SHEET:	C0.1

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ARCHITECTURE, PC
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24 AIRPORT ROAD | SCENECTADY, NY 12302 | 518.320.8250



DEMOLITION ITEMS

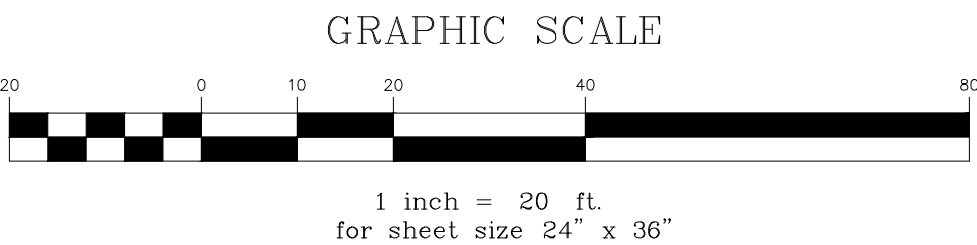
- D1** EXISTING WOODED AREA TO BE CLEARED AND GRUBBED
- D2** EXISTING CATCH BASIN TOP BE DEMOLISHED.
- D3** EXISTING 12" HDPE STORM PIPE TO BE DEMOLISHED
- D4** EXISTING CONC. CURB TO BE REMOVED AND RECONSTRUCTED. SEE SHEET C2.0
- D5** EXISTING PAVEMENT TO BE SAWCUT, REMOVED, AND RECONSTRUCTED. SEE SHEET C2.0. COORDINATE WITH CITY OF ALBANY FOR PAVEMENT INSTALLATION WITHIN HACKETT BOULEVARD R.O.W.
- D6** EXISTING LIGHT POLE, CONC. BASE, AND LIGHT TO BE REMOVED. COORDINATE WITH UTILITY COMPANY FOR REMOVAL OF ELECTRICAL SERVICE.
- D7** EXISTING LIGHT POLE TO BE RELOCATED. SEE SHEET C2.0

DEMOLITION LEGEND

- EXISTING WOODS TO BE CLEARED AND GRUBBED
- EXISTING PAVEMENT TO BE DEMOLISHED
- EXISTING LIGHT TO BE REMOVED
- EXISTING CURB TO BE DEMOLISHED
- EXISTING STORM LINE TO BE REMOVED

SEE EROSION AND SEDIMENT CONTROL PLAN (SHEET C2.2) FOR ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED PRIOR TO START OF CONSTRUCTION ACTIVITIES.

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DEMOLITION NOTES

1. ALL DEMOLITION ITEMS FROM THE DEMOLITION, UNLESS NOTED BY THE OWNER TO BE STORED OR REUSED, BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROMPTLY REMOVED FROM THE SITE. SOIL DISPOSAL SHALL BE AS DIRECTED BY OWNER. ALL DEMOLITION MATERIALS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH REQUIREMENTS OF REGULATORY AGENCIES HAVING JURISDICTION, INCLUDING, BUT LIMITED TO, THE CITY OF ALBANY, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION AND ALL OTHER AGENCIES. ALL DEMOLITION ITEMS SHALL BE DISPOSED OF AT AN APPROVED AND PERMITTED FACILITY.
2. ALL ADJACENT FACILITIES AND STRUCTURES NOT INDICATED AS INCLUDED IN THE SCOPE OF WORK, SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. ALL ADJACENT FACILITIES OR STRUCTURES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO PRE-CONSTRUCTION CONDITION OR BETTER.
3. EXISTING UTILITY CONNECTIONS, INCLUDING WATER, SANITARY SEWER, NATURAL GAS, OVERHEAD & BURIED ELECTRIC, TELEPHONE, CABLE, ETC., SHALL BE TERMINATED AT THE SERVICE MAIN IN ACCORDANCE WITH THE UTILITY COMPANY OR CITY REQUIREMENTS. ALL ONSITE PIPING, WIRING, CONDUITS & STRUCTURES SHALL BE REMOVED.
4. DEMOLITION SHALL INCLUDE, BUT IS NOT LIMITED TO, REMOVAL OF: FOUNDATION WALLS, FLOOR SLABS, SURFACE PAVEMENTS, RETAINING WALL, BUILDINGS, ACCESSORY STRUCTURES AND ALL OTHER STRUCTURES NOT SCHEDULED TO REMAIN.
5. IF HAZARDOUS MATERIALS OR WASTE IS ENCOUNTERED DURING DEMOLITION WORK, THE CONTRACTOR SHALL CONTACT THE REGULATORY AGENCIES AND COMPLY WITH THE JURISDICTIONAL REQUIREMENTS. HAZARDOUS MATERIALS AND WASTES MUST BE REMOVED BY A PERMITTED HAZARDOUS WASTE CONTRACTOR TO A PERMITTED HAZARDOUS WASTE SITE PERMITTED TO ACCEPT THE CHARACTERIZED WASTE.
6. TAKE ALL PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK AREA DURING DEMOLITION PROCEDURES. THE CONTRACTOR SHALL MINIMIZE DUST AND NOISE POLLUTION GENERATED DURING DEMOLITION AND CONSTRUCTION ACTIVITIES.
7. PRIOR TO DEMOLITION, HAND EXCAVATE ANY UNDERGROUND UTILITIES. NOTIFY THE OWNER IF ANY OTHER UTILITIES NOT NOTED ON THE DRAWINGS ARE FOUND.
8. CARE SHALL BE TAKEN NOT TO DAMAGE OR DISTURB ANY TREES NOT CALLED OUT FOR REMOVAL DURING CONSTRUCTION. KEEP CONSTRUCTION ACTIVITIES AND EQUIPMENT OUTSIDE OF DRIP LINE OF EXISTING TREES TO REMAIN AND NEWLY INSTALLED TREES.
9. ALL DEPRESSIONS OR VOIDS IN THE GROUND SURFACE RESULTING FROM DEMOLITION WORK SHALL BE BACKFILLED WITH CLEAN, GRANULAR FILL MATERIALS MEETING NEW YORK STATE DEPARTMENT OF TRANSPORTATION TYPE 4 SPECIFICATIONS AND SHALL BE COMPACTED TO A MINIMUM 90% MODIFIED PROCTOR DENSITY AND PLACED IN 12" LIFTS MAXIMUM.
10. THE CONTRACTOR SHALL REMOVE ALL KNOWN AND DISCOVERED EXISTING SANITARY SEWER AND WATER SERVICES WITHIN THE PROJECT LIMITS THAT ARE NOT TO BE REUSED. THE CONTRACTOR SHALL CAP REMOVED SANITARY SEWER SERVICES AT THE MAIN. THE CONTRACTOR SHALL PLUG REMOVED WATER SERVICES AT THE TAP TO THE WATER MAIN.

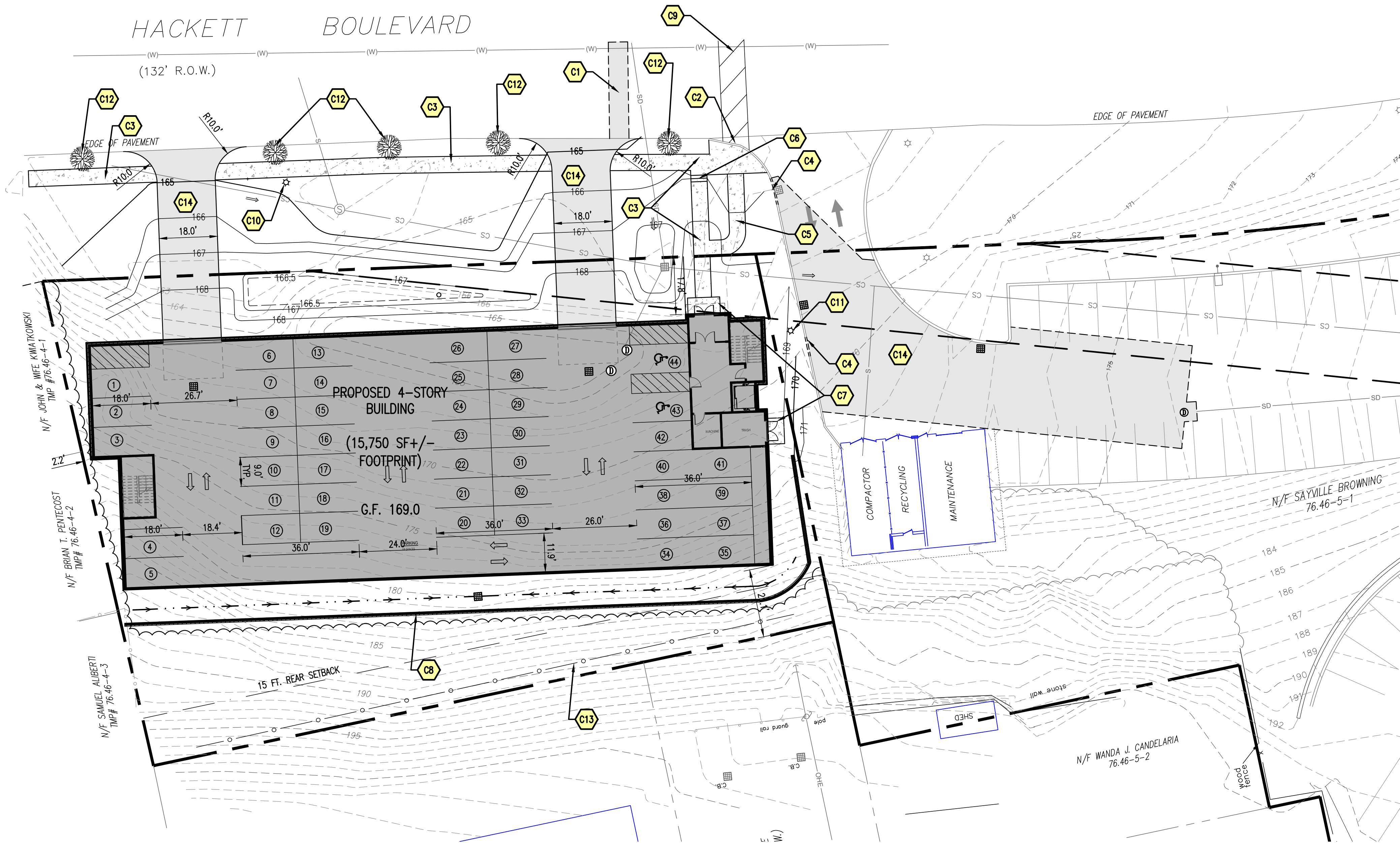
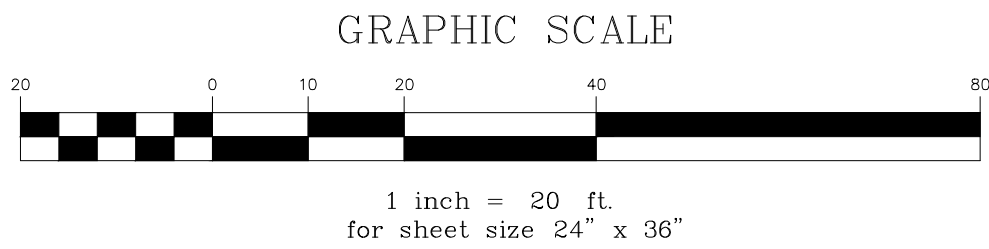
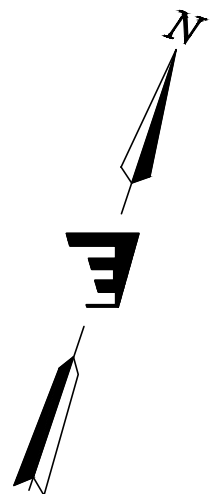
EXISTING CONDITIONS & DEMOLITION PLAN

PROJECT: New Construction
Hackett Boulevard Apartments
Albany, NY 12209
42 Besch Avenue

DRAWN BY: MJD
DATE: 2/12/2021
SCALE: AS NOTED
JOB No.: EV# 20483
SHEET: **C1.0**

No.	REVISION DESCRIPTION	DATE	CONSULTANT



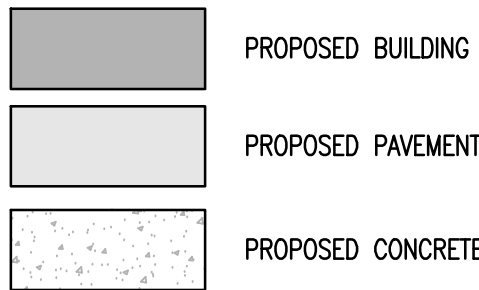


PARKING ANALYSIS

PARKING REQUIRED:
1 SPACE PER UNIT = 39 SPACES
MINUS 20% FOR PROXIMITY TO PUBLIC TRANSPORTATION
31 SPACES REQUIRED

PARKING PROVIDED:
42 STANDARD SPACES
2 ACCESSIBLE SPACES
44 TOTAL SPACES

PROPOSED SURFACES LEGEND



SITE STATISTICS

	EXISTING	% COV.	PROPOSED	% COV.
LOT SIZE	29,036 SF +/-		UNCHANGED	
LOT WIDTH (22' MIN.)	217.2 FT		UNCHANGED	
IMPERVIOUS (80% MAX)	0 SF	0%	16,620 SF	57.3%
GREEN SPACE	29,036 SF	100%	12,416 SF	42.7%
TOTAL	29,036 SF		29,036 SF	

SITE NOTES

- C1** PROPOSED ASPHALT PAVEMENT ROADWAY REPAIR-- SEE CITY STANDARD DETAIL FOR "STREET RESTORATION ASPHALT PAVEMENT DETAIL" ON SHEET C3.5
- C2** PROPOSED FULLY DEPRESSED GRANITE CURB - CURB REVEAL AT ROADWAY SHALL BE 1/2". SEE CITY STANDARD DETAIL DW-4 ON DRAWING C3.5.
- C3** PROPOSED 5' WIDE CONCRETE SIDEWALK - SEE CITY STANDARD DETAIL SW-1 ON DRAWING C3.5.
- C4** PROPOSED GRANITE CURB - SEE CITY STANDARD DETAIL C-1 ON DRAWING C3.5.
- C5** PROPOSED 5' WIDE ADA ACCESSIBLE RAMP - RAMP SLOPE 1:12 MAXIMUM.
- C6** PROPOSED STAIRS WITH RAILING.
- C7** PROPOSED CONCRETE SLAB. SEE DETAIL 1/C3.0.
- C8** PROPOSED RETAINING WALL.
- C9** PROPOSED 8' WIDE CROSSWALK - SEE DETAIL 9/C3.0
- C10** RELOCATED LIGHT POLE. COORDINATE WITH CITY OF ALBANY.
- C11** RELOCATED LIGHT POLE. COORDINATE WITH ADJACENT LANDOWNER.
- C12** BOTANICAL NAME: QUERCUS ROBUR
COMMON NAME: ENGLISH OAK
INITIAL SIZE: 2"-2.5" CALIPER TRUNK (MIN.)
QUANTITY: 6
- C13** PROPOSED 6' HIGH CEDAR WOOD PRIVACY FENCE
- C14** PROPOSED ASPHALT PAVEMENT. SEE DETAIL 2/C3.0

SITE LAYOUT PLAN

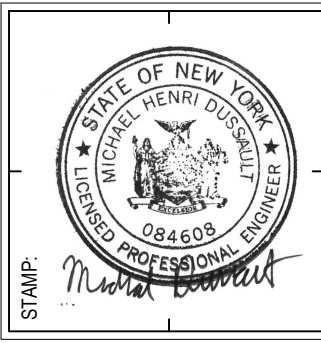
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Hackett Boulevard Apartments
42 Besch Avenue
Albany, NY 12209

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C2.0

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STORMWATER SCHEDULE

ST1	REUSED EXISTING MANHOLE NEW RIM 169.00 NEW INV. IN 161.40 (FROM ST2) EX. INV. OUT (8") 160.0+/- (VERIFY EX. INVERT IN FIELD)	ST8	PROPOSED GRASS SWALE BOTTOM WIDTH = 24" DEPTH = 12" 3:1 SIDE SLOPES MIN SLOPE = 1.0%	SEE PROPOSED STORMWATER DETAILS ON SHEET C3.1 & C3.2
ST2	PROPOSED 48,000 GAL. CONCRETE STORMWATER TANK SEE STRUCTURAL BUILDING DRAWINGS SEE OUTLET STRUCTURE DETAIL ON SHEET C3.2 INV. IN (12") 163.00 (FROM ST3) INV. IN (12") 164.00 (FROM ST6) INV. OUT (8") 161.50	ST9	PROPOSED RAIN GARDEN SEE DETAIL ON SHEET C3.2	
ST3	PROPOSED STORM MANHOLE W/ CONTECH CDS2015-4-C WQ UNIT (SEE DETAIL-SHEET C3.2) RIM ELEV. 168.80 INV. IN (12" HDPE) 163.10 INV. OUT (12" HDPE) 163.10 SUMP ELEV. 158.60	ST10	PROPOSED CORE IN FIELD INTO COMBINED SEWER. COORDINATE WITH CITY OF ALBANY WATER/SEWER DEPARTMENT INV. 163.0+/- VERIFY EXISTING INVERT IN FIELD	
ST4	PROPOSED 3' DIA. CB RIM 168.50 INV. IN (12") 164.60 (FROM ST5) INV. IN (12") 163.80 (FROM ST9) INV. OUT (12") 163.70 SUMP 162.70	ST11	PROPOSED SUBSURFACE DETENTION BASIN #1 COORDINATE WITH ADJACENT LANDOWNER SEE DETAIL ON SHEET C3.2	
ST5	PROPOSED 3' DIA. CB RIM 168.50 INV. IN (12") 166.50 INV. OUT (12") 165.30 SUMP 163.30	ST12	PROPOSED SUBSURFACE DETENTION BASIN #2 COORDINATE WITH ADJACENT LANDOWNER SEE DETAIL ON SHEET C3.2	
ST6	PROPOSED 3' DIA. CB RIM 167.50 INV. OUT (12") 164.30 SUMP 162.30	ST13	PROPOSED STORM MANHOLE W/ CONTECH CDS2015-4-C WQ UNIT (SEE DETAIL-SHEET C3.2) RIM ELEV. 176.10 EX INV IN (12" HDPE) 172.20+/- (VERIFY IN FIELD) INV. OUT (12" HDPE) 170.40 SUMP ELEV. 165.90	
ST7	PROPOSED 6" PERF. PVC UNDERDRAIN ON UPSLOPE SIDE OF RETAINING WALL	ST14	PROPOSED 3' DIA. CB RIM 168.90 INV. OUT (12") 165.90 SUMP 164.90	
		ST15	CORE NEW OPENING IN EXISTING CATCH BASIN. COORDINATE WITH CITY OF ALBANY WATER/SEWER DEPARTMENT. INV. 163.50	
		ST16	PROPOSED 6" RECTORSEAL CLEAN CHECK BACKWATER VALVE (MODEL 97026 OR APPROVED EQUIVALENT)	
		ST17	PROPOSED ROOF LEADER, PORTION OF ROOF ROUTED TO RAIN GARDEN ST9, REMAINDER OF ROOF ROUTED TO CATCH BASIN ST4	

STORM PIPE TABLE

ST2	TO	ST1	5 LF OF 8" PVC AT 2.00%	ST8	TO	ST4	52 LF OF 12" HDPE AT 0.86%
ST3	TO	ST2	6 LF OF 12" HDPE AT 1.67%	ST11	TO	ST10	13 LF OF 12" HDPE AT 15.38%
ST4	TO	ST3	11 LF OF 12" HDPE AT 5.45%	ST12	TO	ST11	12 LF OF 12" HDPE AT 8.33%
ST5	TO	ST4	122 LF OF 12" HDPE AT 0.57%	ST13	TO	ST12	5 LF OF 12" HDPE AT 5.5%
ST6	TO	ST2	58 LF OF 12" HDPE AT 0.50%	ST14	TO	ST11	16 LF OF 12" HDPE AT 0.62%
				ST15	TO	ST10	38 LF OF 12" HDPE AT 1.32%
				ST17	TO	ST9	5 LF OF 6" PVC AT 2.0%

SANITARY SEWER SCHEDULE

SS1	PROPOSED CORE IN FIELD INTO COMBINED SEWER. COORDINATE WITH CITY OF ALBANY WATER/SEWER DEPARTMENT INV. 152.9+/- VERIFY EXISTING INVERT IN FIELD	SEE PROPOSED SANITARY DETAILS ON SHEET C3.1
SS2	PROPOSED 6" RECTORSEAL CLEAN CHECK BACKWATER VALVE MODEL 97026 OR APPROVED EQUIVALENT	
SS3	SANITARY CONNECTION TO BUILDING INV. 164.0	
SS4	PROPOSED 6" PVC SDR26 SANITARY LATERAL (AT 2.0% MIN)	

WATER SHEDULE

W1	6"x12" MUELLER S.S. TAPPING SLEEVE AND VALVE. THE CONTRACTOR SHALL PROVIDE TAPPING SLEEVE AND VALVE. ALBANY WATER DEPARTMENT SHALL PERFORM THE WET TAP.	SEE PROPOSED WATER DETAILS ON SHEET C3.0
W2	PROPOSED 6" DIP CL 52 WATER LINE	
W3	WATER CONNECTION TO THE BUILDING	

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STATE OF NEW YORK
JAMES L. STATOM
Professional Engineer
No. 16486
Exp. 12/31/2024
www.jlstatom.com

ENGINEERING
VENTURES, PC
200 New Amsterdam Road, Albany, NY 12209
518.320.8250
www.c2-designgroup.com

STAMP
Mueli Statom

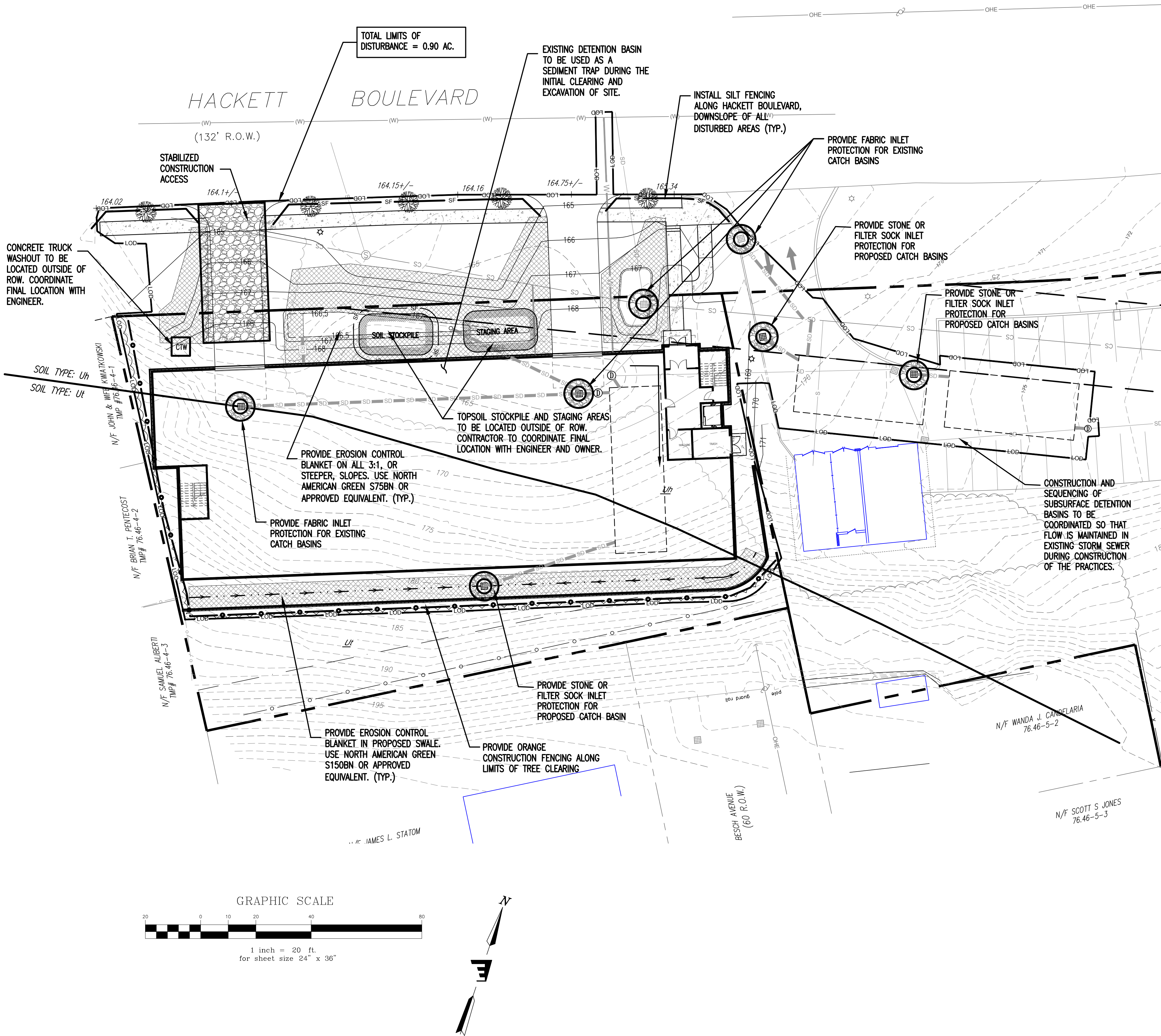
GRADING & UTILITY PLAN

New Construction
Hackett Boulevard Apartments
42 Besch Avenue
Albany, NY 12209

DRAWN BY: MJD
DATE: 2/12/2021
SCALE: AS NOTED
JOB No.: EV# 20483
SHEET: C2.1

FOR REVIEW ONLY
NOT FOR CONSTRUCTION
FEBRUARY 12, 2021

PLOT DATE: 2/12/2021 9:00 AM



EROSION CONTROL STRUCTURE SCHEDULE

EROSION PREVENTION AND SEDIMENT CONTROL STRATEGY
THE FOLLOWING TECHNIQUES WILL BE UTILIZED AS PART OF A SEDIMENT AND EROSION CONTROL PROGRAM. THE SEDIMENT AND EROSION CONTROL PROGRAM WILL BE IMPLEMENTED IN STAGES. CERTAIN ITEMS FROM ONE STAGE WILL LIKELY OVERLAP OR TAKE PLACE CONCURRENTLY WITH ITEMS FROM OTHER STAGES. REFER TO DETAILS THIS SHEET.

STABILIZED CONSTRUCTION ACCESS
THIS STRUCTURAL MEASURE IS A STABILIZED PAD OF AGGREGATE UNDERLAIN WITH FILTER FABRIC LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT-OF-WAY, STREET, ALLEY, SIDEWALK, OR PARKING AREA. THE PURPOSE OF A STABILIZED CONSTRUCTION ACCESS IS TO REDUCE OR ELIMINATE THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY OR STREETS. THIS WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE PROJECT SITE HAS BEEN PERMANENTLY STABILIZED.

SILT FENCING
THIS STRUCTURAL MEASURE IS A TEMPORARY BARRIER OF GEOTEXTILE FABRIC USED TO INTERCEPT SEDIMENT LADEN RUNOFF FROM SMALL DRAINAGE AREAS OF DISTURBED SOIL. IT IS INSTALLED ALONG THE PERIMETER OF IMPACTED AREAS AND ALONG THE BASE OF THE FILL SLOPES. ADDITIONALLY, WHEN DESIGNATED ALONG THE LIMITS OF DISTURBANCE, INSTALL CONSTRUCTION FENCE BEHIND THE SILT FENCE. THESE WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE PROJECT SITE HAS BEEN PERMANENTLY STABILIZED. SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES 6 INCHES DEEP AT THE FENCE. THE SILT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A PROPER SEDIMENT BARRIER.

APPROXIMATE SOIL STOCKPILE AREAS
THESE ARE APPROVED LOCATIONS WHERE TOPSOIL AND OTHER SOIL MATERIALS MAY BE STORED. THESE STOCKPILES WILL BE PROTECTED FROM EROSION BY A NUMBER OF METHODS, INCLUDING INSTALLING SILT FENCING AROUND THE DOWN GRADIENT PERIMETER OF THE STOCKPILE AND SEEDING AND MULCHING THE STOCKPILE WHEN NOT IN USE FOR MORE THAN FIVE DAYS. CONTRACTOR SHALL SUBMIT PROPOSED AREA FOR ENGINEER APPROVAL.

APPROXIMATE STAGING AND WASTE AREAS
THESE ARE APPROVED LOCATIONS WHERE NON-SOIL, NON-ERODIBLE MATERIALS MAY BE STORED. SOILS SHALL NOT BE STORED IN THESE AREAS.

LIMITS OF DISTURBANCE
THE CONTRACTOR SHALL CONTAIN ANY EARTH MOVING ACTIVITIES WITHIN THE DESIGNATED LIMITS SHOWN ON THIS PLAN. THE ENGINEER SHALL REVIEW THE SITE TO MAKE ANY ADJUSTMENTS TO ACCOUNT FOR ENVIRONMENTALLY SENSITIVE AREAS, SPECIMEN TREES AND SPECIAL AREAS OF CONCERN. THE LIMITS SHALL BE DEMARKED WITH ORANGE CONSTRUCTION FENCE, BARRIER TAPE, OR FLAGGING TAPE. THESE WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE PROJECT SITE HAS BEEN PERMANENTLY STABILIZED. CONFIRM LOCATION, EXTENTS AND GATES WITH OWNER. FENCE LOCATION AND GATES TO BE RE-ADJUSTED AS NECESSARY BASED ON CM REQUIREMENTS AND COORDINATION.

CONCRETE TRUCK WASHOUT
THIS IS AN APPROVED LOCATION WHERE CONCRETE TRUCK MIXERS AND EQUIPMENT CAN BE WASHED AFTER THEIR LOADS HAVE BEEN DISCHARGED, TO PREVENT HIGHLY ALKALINE RUNOFF FROM ENTERING STORM DRAINAGE SYSTEMS OR LEACHING INTO THE SOIL. THE FACILITY SHALL BE LINED TO PREVENT RUNOFF FROM LEACHING INTO THE SOIL. TEMPORARY SIGNAGE SHALL BE PROVIDED TO DIRECT DRIVERS TO THE FACILITY.

TEMPORARY INLET PROTECTION
INSTALL ON ALL PROPOSED CATCH BASINS. STONE TO BE REMOVED AND REPLACED WITH CLEAN STONE WHEN SEDIMENT IS $\leq 1/2$ DEPTH OF STONE. REMOVE ALL SEDIMENT IF COLLECTED IN STRUCTURE AS SOON AS POSSIBLE.

DUST CONTROL
DUST SHALL BE CONTROLLED THROUGH APPLICATION OF WATER, AS REQUIRED TO PREVENT MIGRATION BEYOND THE PROJECT LIMITS. CONTROL OF DUST REMAINS AN ONGOING RESPONSIBILITY OF THE CONTRACTOR UNTIL THE SITE IS FULLY STABILIZED.

INSPECTION REQUIREMENTS
THE ON-SITE COORDINATOR (OSC) IS RESPONSIBLE FOR INSPECTION OF ALL EPSC MEASURES EVERY 7 DAYS AND AS SOON AS REASONABLY POSSIBLE DURING OR AFTER WEATHER RESULTING IN RUNOFF FROM THE SITE. FULL COMPLIANCE WITH THE REQUIREMENTS OF NEW YORK STATE STANDARDS & SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, DATED NOVEMBER 2016, IS THE RESPONSIBILITY OF THE CONTRACTOR AND OSC. INSPECTION FREQUENCY MAY BE REDUCED TO MONTHLY IF ALL DISTURBED AREAS HAVE BEEN STABILIZED. INSPECTION AND REPORTING REQUIREMENTS DO NOT CEASE UNTIL THE SITE IS PERMANENTLY STABILIZED.

VEGETATIVE STABILIZATION
ALL SEEDING FOR VEGETATIVE STABILIZATION IS TO TAKE PLACE BETWEEN APRIL 15TH AND SEPTEMBER 15TH UNLESS OTHERWISE APPROVED.

STABILIZATION REQUIREMENTS
TO BE CONSIDERED PERMANENTLY STABILIZED, ALL DISTURBED AREAS MUST BE PROTECTED BY ONE OF THE FOLLOWING: PAVEMENT, GRAVEL, MULCH BEDS, OR VEGETATION (80% MINIMUM COVERAGE). THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL SEDIMENT CONTROL MEASURES (SILT FENCE, DISTURBANCE LIMIT MARKERS, INLET PROTECTION, ETC.) AND FOR RESTORATION OF ALL STAGING AND SOIL STOCKPILE AREAS BEFORE FILING NOTICE OF TERMINATION.

SOLID WASTE DISPOSAL
SOLID WASTES SHALL BE COLLECTED ON SITE AND REMOVED TO AN APPROVED OFF-SITE FACILITY. IF WASTES ARE TO BE STORED ON SITE, CONTRACTOR SHALL SUBMIT A WASTE MANAGEMENT PLAN FOR REVIEW AND APPROVAL BY THE DESIGN ENGINEER.

SITE SOILS

SYMBOL	SOIL TYPE	HSG
Uh	UDORTHENTS, CLAYEY-URBAN LAND COMPLEX	D*
Ut	URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	C*

*HSG TYPE ASSUMED TO BE SIMILAR TO EXISTING NON-URBAN LAND SOILS IN THE SURROUNDING AREA OF THE PROJECT. THESE SOILS ARE COMPRISED OF HUDSON SILT LOAM SOILS, WHICH ARE HSG C/D. FOR SATURATED CONDITIONS THAT ARE LIKELY TO EXIST ON THIS SITE IN THE AREA OF Uh SOILS, THE ASSUMED HSG IS 'D'.

SOIL RESTORATION NOTES

- IN ACCORDANCE WITH SECTION 5.1.6 OF THE NYS STORMWATER MANUAL, SOIL RESTORATION TECHNIQUES SHALL BE APPLIED TO ALL PROPOSED LAWN AREAS EXCEPT FOR THE AREA WITHIN THE INFILTRATION BASIN FOOTPRINT. SEE SHEET C1.1. SOIL RESTORATION SHALL CONSIST OF THE FOLLOWING PROCEDURE:
- 1) APPLY THREE (3) INCHES OF COMPOST OF SUBSOIL. COMPOST SHALL BE AGED, FROM PLANT DERIVED MATERIALS, FREE OF VIABLE WEED SEEDS, HAVE NO VISIBLE FREE WATER OR DUST PRODUCED WHEN HANDLING, PASS THROUGH A 1/2" SCREEN, AND HAVE A PH SUITABLE TO GROW DESIRED PLANTS.
 - 2) TILL COMPOST INTO SUBSOIL TO A DEPTH OF AT LEAST 12 INCHES USING A CAT-MOUNTED RIPPER, TRACTOR MOUNTED DISC, OR TILLER, MIXING, AND CIRCULATING AIR AND COMPOST INTO SUBSOILS. IN AREA OF PROPOSED INFILTRATION BASIN, INSTALL ORANGE CONSTRUCTION FENCING AROUND BASIN BOTTOM TO KEEP CONSTRUCTION EQUIPMENT FROM CROSSING THE PROPOSED BASIN BOTTOM.
 - 3) ROCK-PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF FOUR INCHES AND LARGER SIZE ARE CLEANED OFF THE SITE.
 - 4) APPLY TOPSOIL TO A DEPTH OF 6 INCHES.
 - 5) VEGETATE AS REQUIRED BY APPROVED PLAN.

C2 ARCHITECTURE, PC
SCHENECTADY, NY 12302 | 518.320.8250
WWW.C2-DESIGNGROUP.COM

24 AIRPORT ROAD | SCHENECTADY, NY 12302 | 518.320.8250
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ENGINEERING VENTURES, PC
2000 New Amsterdam Road, Albany, NY 12208
914-439-8800
www.engineeringventures.com

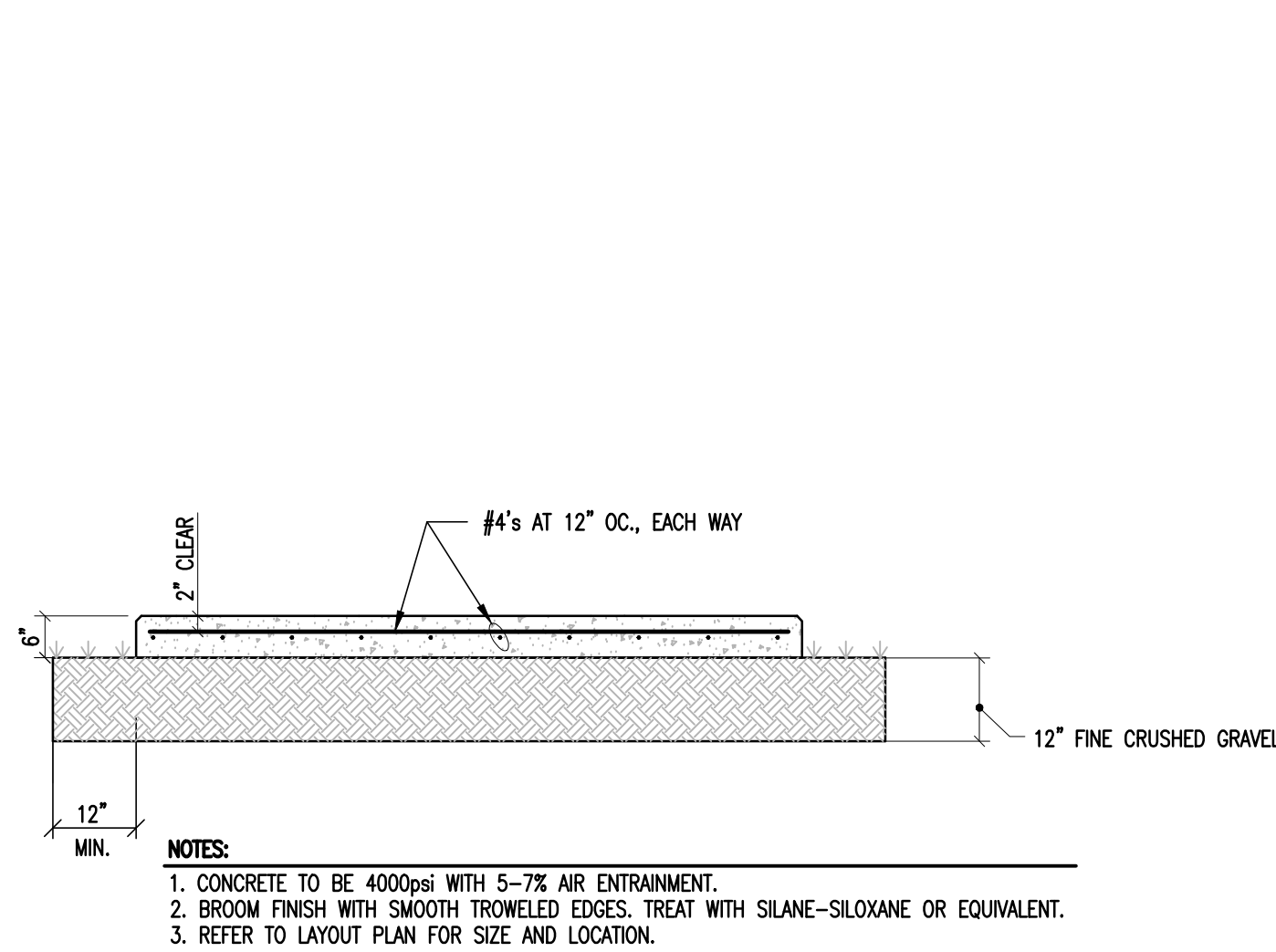
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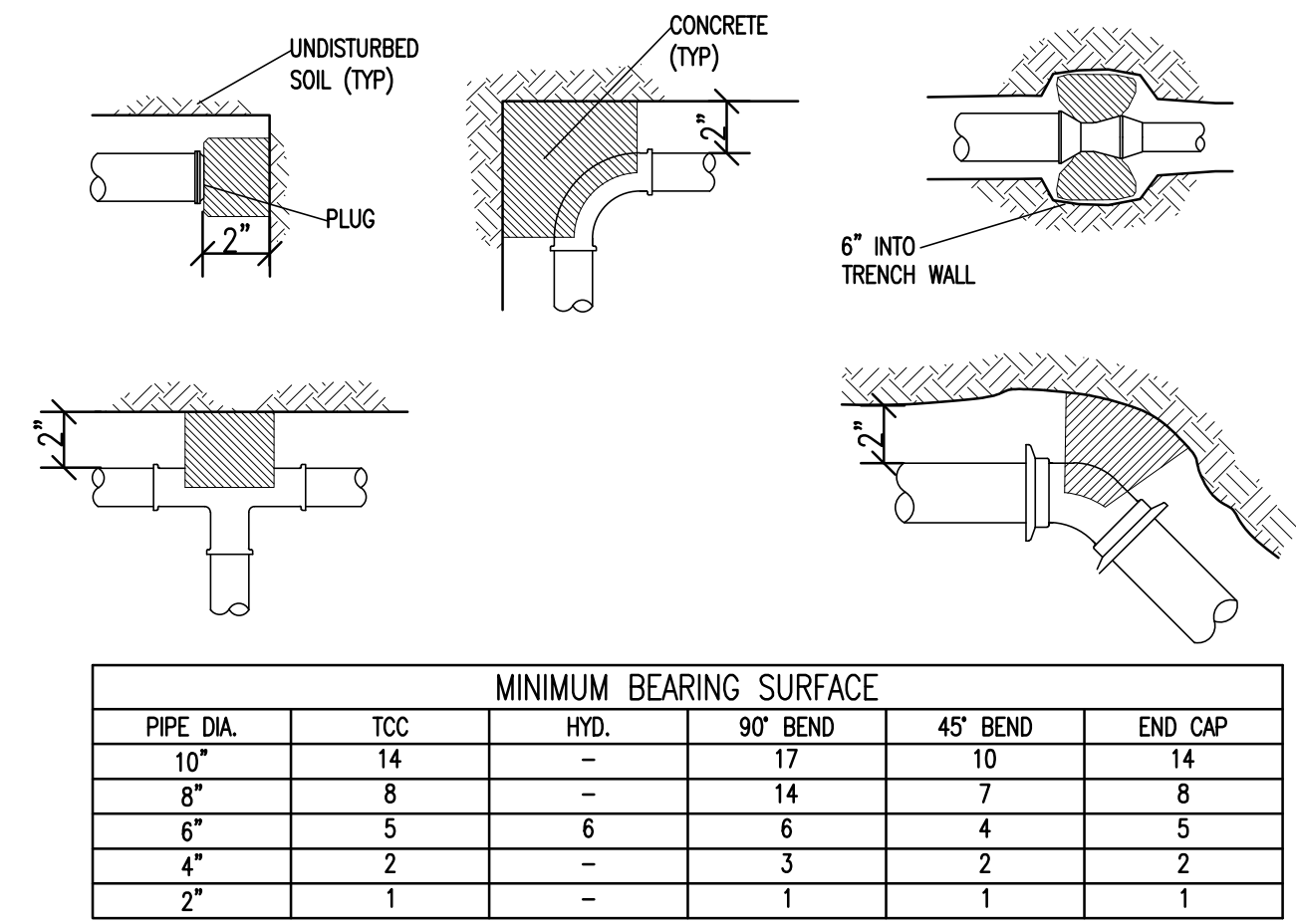
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EXTERIOR CONCRETE PAD DETAIL

SCALE: NONE

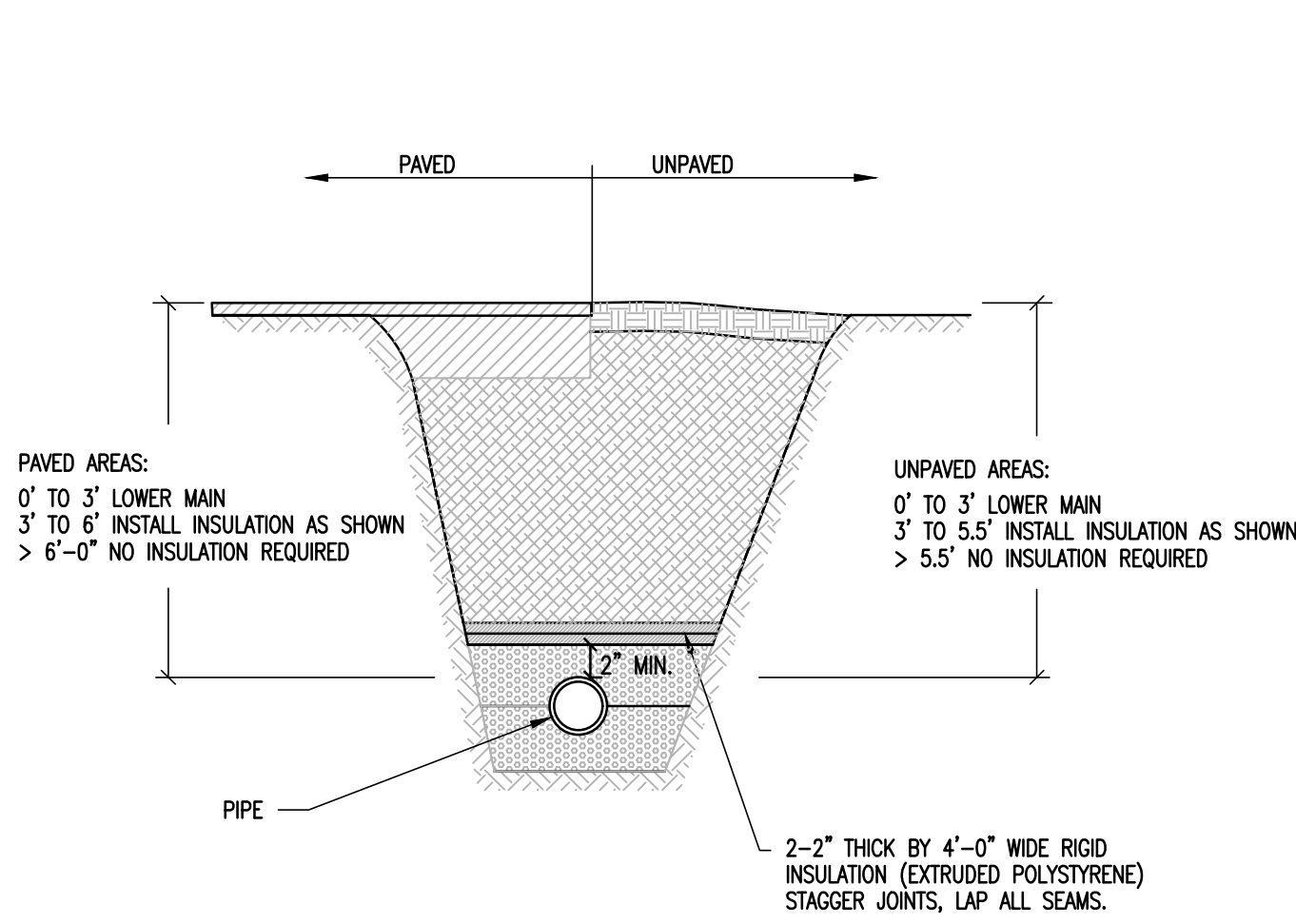
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TYPICAL BEARING THRUST BLOCK

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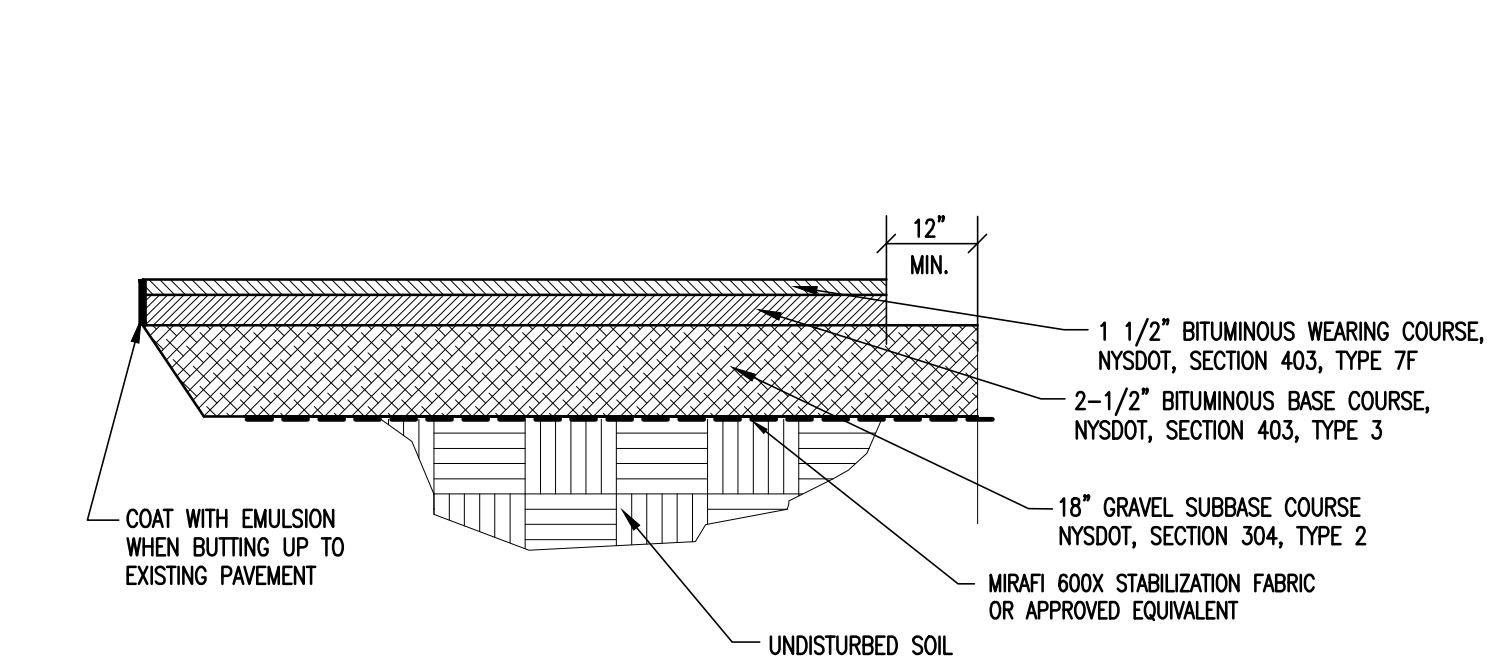
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INSULATION OVER SHALLOW WATERLINE DETAIL

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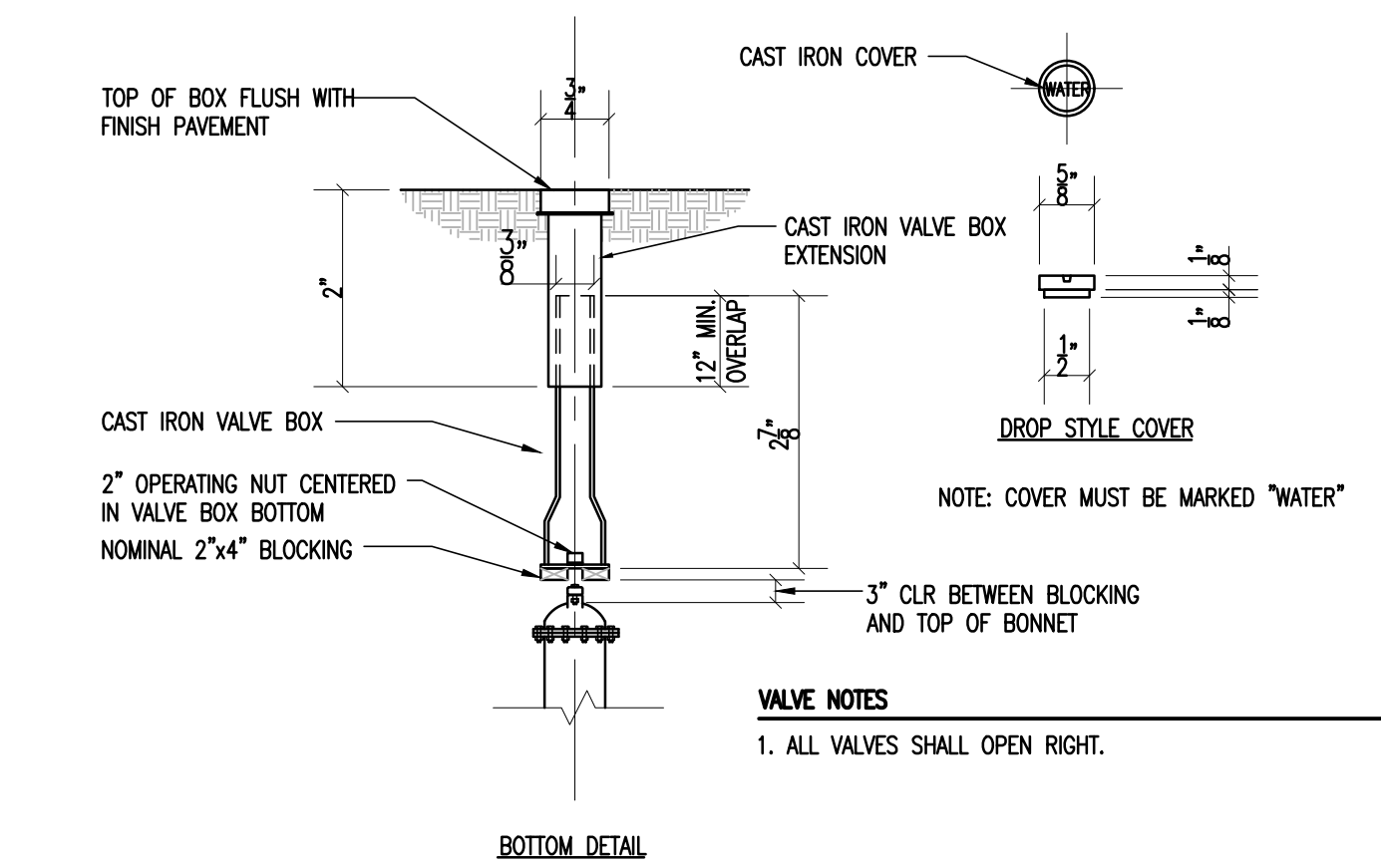
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TYPICAL ASPHALT PAVEMENT DETAIL

SCALE: NONE

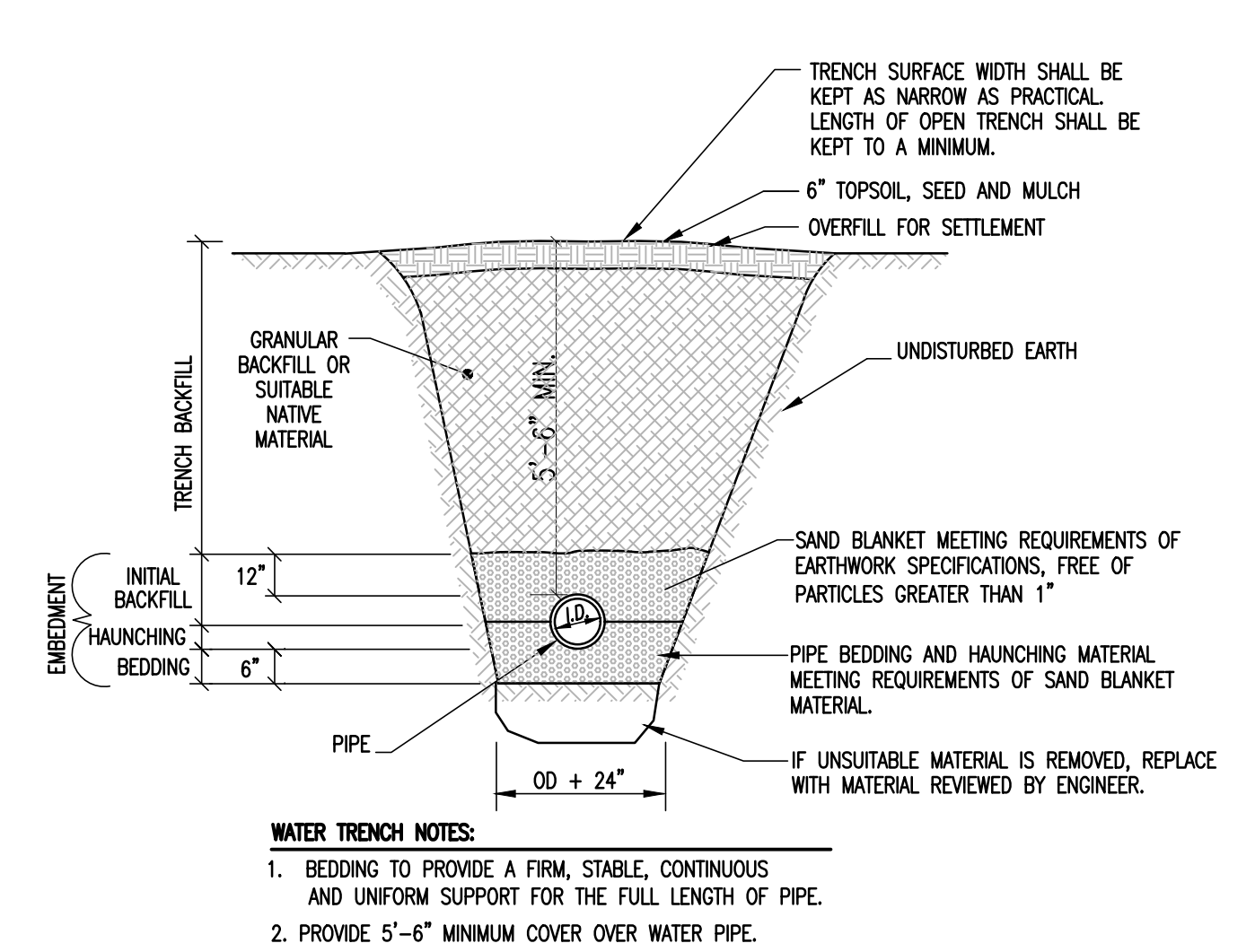
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TYPICAL VALVE BOX DETAIL

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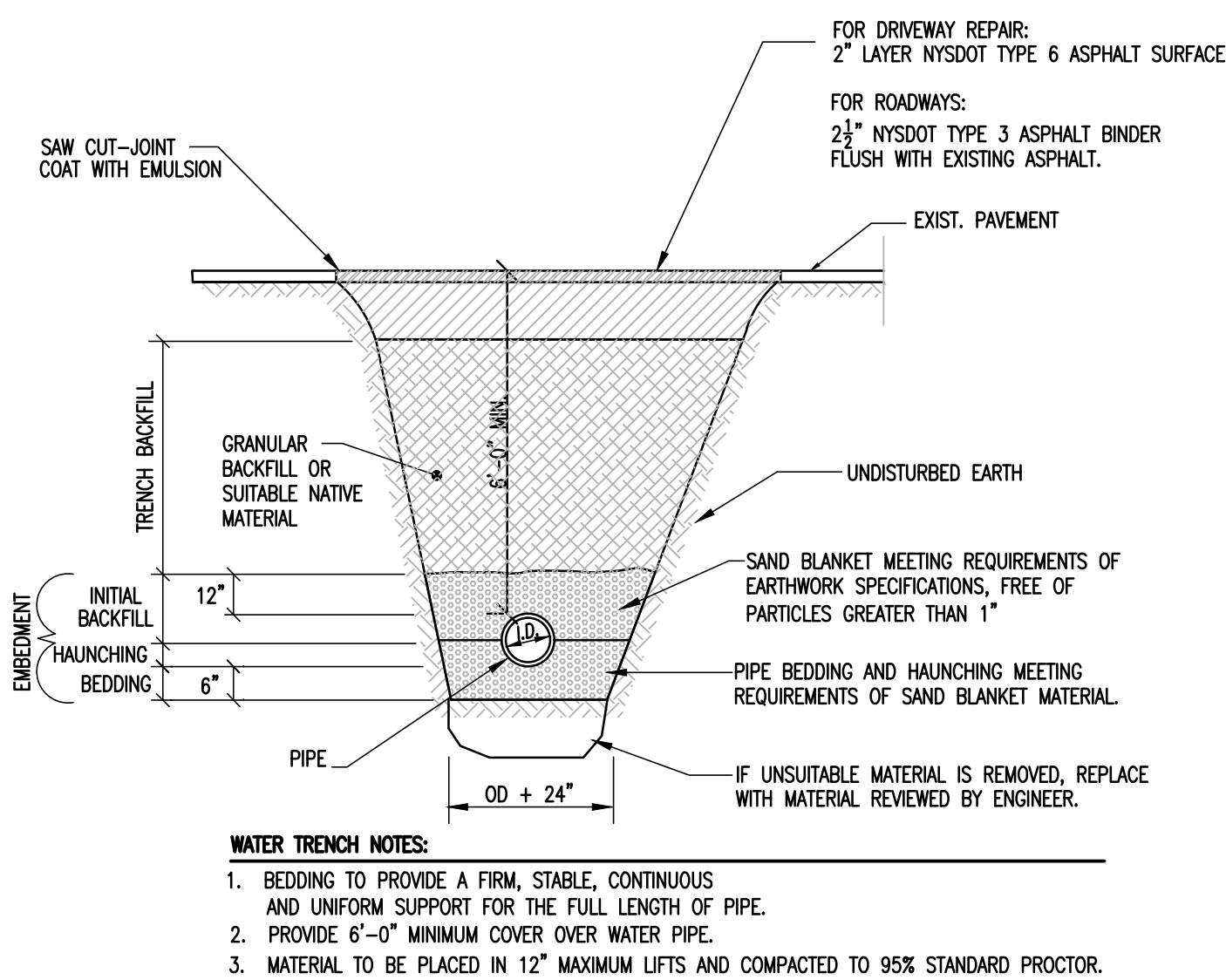
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TYPICAL WATER TRENCH IN NON-PAVED AREAS DETAIL

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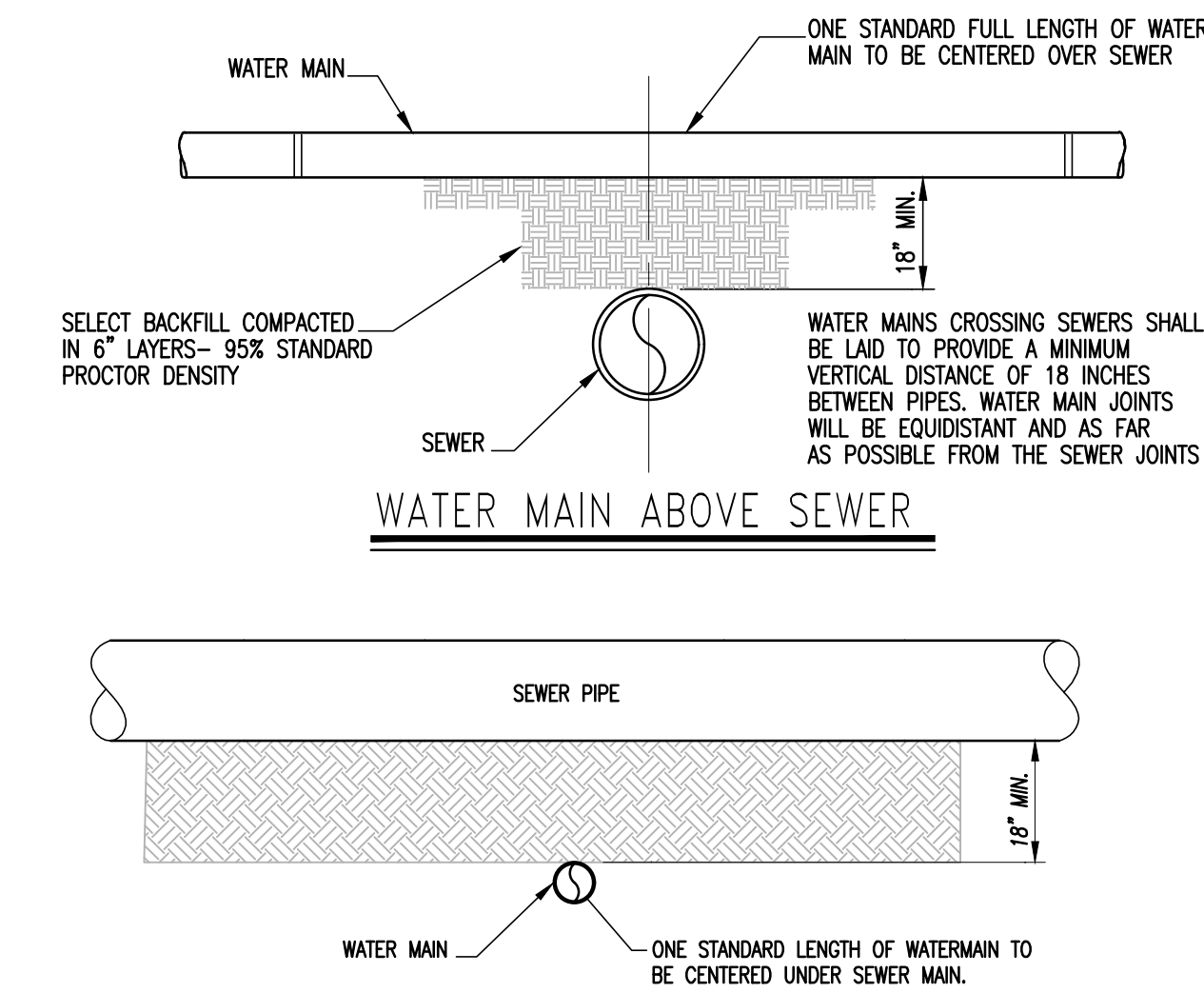
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TYPICAL WATER TRENCH IN PAVEMENT DETAIL

SCALE: NONE

6



WATER MAIN ABOVE SEWER

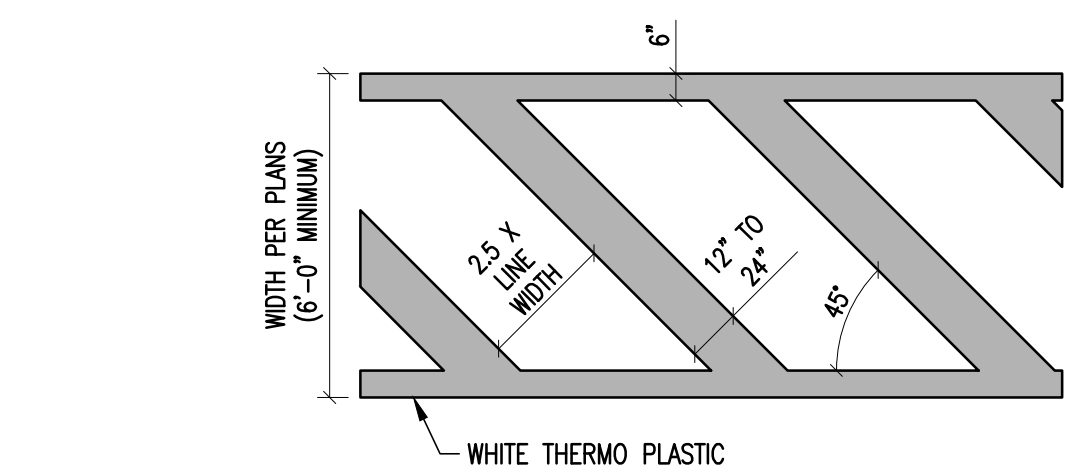
SEPARATION NOTES:

1. WATER MAIN RELATIONS TO SEWER SHALL BE IN ACCORDANCE WITH THE "RECOMMENDED STANDARDS FOR WATER WORKS" SO-CALLED TEN STATE STANDARDS.
2. WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWERS. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. IF THIS DISTANCE CANNOT BE OBTAINED, THEN THE PIPES SHALL BE INSTALLED IN A SEPARATE TRENCH AT AN ELEVATION SO THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
3. WHEN IT IS IMPOSSIBLE TO MAINTAIN 18" VERTICAL SEPARATION OR WHERE THE SEWER MUST BE LAID ABOVE THE WATER MAIN: 1) THE CROSSING SHALL BE ARRANGED SO THAT ONE FULL LENGTH OF SEWER IS CENTERED ABOVE OR BELOW THE WATER LINE WITH SEWER JOINTS AS FAR AS POSSIBLE FROM WATER JOINTS; 2) THE SEWER PIPE MUST BE CONSTRUCTED TO WATER MAIN STANDARDS FOR A MINIMUM DISTANCE OF 20 FEET EITHER SIDE OF THE CROSSING OR A TOTAL OF THREE PIPE LENGTHS, WHICH EVER IS GREATER; 3) THE SECTION CONSTRUCTED TO WATER MAIN STANDARDS MUST BE PRESSURE TESTED TO MAINTAIN 50 PSI FOR 15 MINUTES WITHOUT LEAKAGE PRIOR TO BACKFILLING BEYOND ONE FOOT ABOVE THE PIPE TO ASSURE WATER TIGHTNESS.

TYPICAL SEWER/WATER SEPARATION DETAIL

SCALE: NONE

8



TYPICAL CROSSWALK DETAIL

SCALE: NONE

9

WATER NOTES:

WATER MAINS

1. PERFORM A HYDROSTATIC AND LEAKAGE TEST ACCORDING TO AWWA C600 (LATEST REVISION) ON EACH PIPE LINE.
2. THE ENGINEER SHALL BE GIVEN AT LEAST 48 HOURS NOTICE BEFORE THE TEST IS CONDUCTED. TEST MUST BE WITNESSED BY THE ENGINEER.
3. SPECIFIED TEST PRESSURE IS A MINIMUM OF 200 PSI OR 1.5X THE WORKING PRESSURE, WHICHEVER IS GREATER, AND PRESSURE DURING TEST SHALL NOT VARY BY MORE THAN 5 PSI. SEE THE CURRENT EDITION OF AWWA C600 FOR ALLOWABLE LEAKAGE.

EXISTING UTILITIES

1. LOCATION OF UTILITY INSTALLATIONS AND UNDERGROUND STRUCTURES ARE SHOWN AS APPROXIMATE ON THE CONTRACT DOCUMENTS. SOME UTILITIES MAY NOT BE SHOWN.
2. ALL UTILITIES SHALL BE LOCATED BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
3. EXISTING UTILITIES SHALL BE PROTECTED AND SUPPORTED DURING CONSTRUCTION.
4. ALL WATER, GAS, CABLE, TELEPHONE, ELECTRIC, SEWER, AND OTHER UTILITIES FOUND TO INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED IN A MANNER ACCEPTABLE TO THE ENGINEER.

PIPE BEDDING

1. SAND BEDDING SHALL MEET REQUIREMENTS OF EARTHWORK SPECIFICATIONS.
2. SAND BLANKET SHALL MEET REQUIREMENTS OF EARTHWORK SPECIFICATIONS.
3. TRENCH FINAL BACKFILL MATERIAL - MATERIAL WILL EXCLUDE PIECES OF PAVEMENT, ORGANIC MATTER, TOPSOIL, ALL WET OR SOFT MUCK, PEAT, CLAY, LARGE ROCKS (GREATER THAN 12" DIMENSION), OR ANY MATERIAL DETERMINED BY THE ENGINEER THAT WILL NOT BE SUITABLE.

PIPE TRENCH BACKFILL

1. MEET EARTHWORK SPECIFICATIONS FOR PLACEMENT AND COMPACTION.

DUCTILE IRON PIPE (WATER)

1. D.I. PIPE CONFORM TO AWWA/ANSI C151.
2. LININGS AND LINING REPAIR TO AWWA/ANSI C104.
3. JOINTS CONFORM TO AWWA/ANSI C 111 AND C115.
4. FITTINGS CONFORM TO AWWA/ANSI C110, C153, C105.
5. KEEP INSIDE OF PIPE CLEAN AND FREE OF DEBRIS.
6. REJECT ANY PIPE WHICH IS DROPPED DURING HANDLING.
7. MECHANICAL JOINT GLANDS SHALL BE "MEGA-LUG" RETAINER GLANDS.
8. DUCTILE IRON FITTINGS: ANSI A21.10, 150 PSI PRESSURE RATING.
9. JOINTS: MECHANICAL, PUSH-ON, AND FLANGED:
 - A. RUBBER GASKET JOINT, ANSI A21.11
10. GASKETS:
 - A. MECHANICAL AND PUSH-ON JOINTS: ANSI A21.11
 - B. FLANGED JOINT: 1/8" THICK RING OR FULL FACED RUBBER, ANSI A21.15.

11. BOLTS/NUTS
 - A. MECHANICAL JOINT: ANSI A21.11
 - B. FLANGED JOINT: ANSI A21.15
12. LININGS:
 - A. INTERIOR - CEMENT LINED, DOUBLE THICKNESS BITUMINOUS SEAL
 - B. EXTERIOR - BITUMINOUS COATING APPROX. 1 MIL THICK, ANSI A21.51, ANSI A21.15, AND ANSI A21.10.
 - C. FLANGE MACHINED FACE COATING: ANSI A21.15.

LAYING PIPE

1. PIPE SHALL BE LAID WITH BELL ENDS FACING IN THE DIRECTION OF LAYING.
2. WHERE PIPE IS LAID ON A SLOPE OF 5% OR MORE, THE LAYING SHALL START AT THE LOW END AND PROCEED UPHILL, WITH THE BELL ENDS UPGRADE.
3. A WATER TIGHT PLUG SHALL BE PLACED IN THE OPEN ENDS OF INSTALLED PIPE WHEN PIPE LAYING IS NOT IN PROGRESS.
4. MAX. PERMISSIBLE DEFLECTION IS 75% OF AWWA SPEC. C600.

CHLORINATION OF DOMESTIC WATER LINES

1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS IN ADVANCE OF BEGINNING ANY DISINFECTION OF WATER MAINS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR BACTERIOLOGICAL TESTING AS REQUIRED BY THIS SPECIFICATION AND REFERENCE STANDARDS MENTIONED. THE CONTRACTOR SHALL PROVIDE THE ALBANY WATER DEPARTMENT WITH A COPY OF THE BACTERIOLOGICAL TESTING RESULTS.
3. DISINFECT ALL NEW PIPELINE SYSTEMS IN ACCORDANCE WITH AWWA C651, INCLUDING:
 - A. METHOD OF CHLORINE APPLICATION. USE CONTINUOUS FEED METHOD OR SLUG METHOD (TABLET METHOD IS NOT ACCEPTABLE).
 - B. FORM OF CHLORINE UTILIZED.
 - C. FINAL FLUSHING.
 - D. BACTERIOLOGICAL TESTING.
 - E. REPETITION OF PROCEDURE.

GATE VALVES

1. RESILIENT SEAT GATE VALVES BY KENNEDY "KEN-SEAL" OR EQUAL.
2. IRON BODY GATE VALVES TO MEET AWWA C-509-87.
3. STEM CONSTRUCTION: NON-RISING.
4. STEM SEALS: DOUBLE O-RING.
5. GATE: CAST IRON RESILIENT WEDGE WITH SYNTHETIC ELASTOMER COATING, AND SHALL BE EPOXY COATED (FUSION BONDED) INSIDE AND OUT.
6. BONNET HARDWARE SHALL MEET ASTM A307, CADMIUM PLATED.
7. OUTLET CONNECTION: STANDARD MECHANICAL JOINT.
8. OPERATION: OPEN COUNTERCLOCKWISE.

TAPPING SLEEVES AND VALVES

TAPPING VALVES

1. TAPPING VALVES TO MEET ANSI/AWWA C509-87, STANDARD FOR RESILIENT SEATED GATE VALVES.
2. VALVES SHALL HAVE A MINIMUM WORKING PRESSURE OF 150 PSI.
3. VALVES SHALL OPEN COUNTERCLOCKWISE.
4. INLET FLANGES SHALL BE CLASS 125, ANSI B16.1, OR ANSI/AWWA C110/A21.10.
5. OUTLET CONNECTION: STANDARDIZED MECHANICAL JOINT.
6. STEM SEALS: O RING.
7. STEM CONSTRUCTION: NON-RISING.
8. SEATING: PARALLEL SEAT.
9. END CONNECTIONS: MECHANICAL ON RUN, FLANGED ON BRANCH.
10. BURIED TAPPING VALVES SHALL BE PROVIDED WITH A 2 INCH SQUARE WRENCH NUT AND CAST IRON VALVE BOX. IF DEPTH FROM GRADE TO TOP OF VALVE OPERATING NUT IS GREATER THAN 6'-0" , A VALVE STEM RISER MADE OF HIGH STRENGTH STEEL SHALL BE PROVIDED. DEPTH FROM VALVE STEM RISER NUT TO GRADE WILL BE 4 TO 6 FEET.

TAPPING SLEEVES

1. AWWA C509, LATEST REVISION.
2. AWWA C207, CLASS D, MAX. WORKING PRESSURE OF 150 PSI.
3. SLEEVES: SPLIT SLEEVES OF CAST IRON OR DUCTILE IRON.
4. MECHANICAL JOINT ENDS WITH END AND GASKET SEALS.
5. BOLTS AND NUTS, MECHANICAL JOINTS: HIGH STRENGTH CAST IRON OR HIGH STRENGTH LOW ALLOY STEEL, ANSI/AWWA C111/A21.11-90.
6. BOLTS AND NUTS, FLANGED JOINTS: HIGH STRENGTH, LOW CARBON STEEL CONFORMING TO ANSI/AWWA C110/A21.10-87, APPENDIX.
7. COAT ALL NUTS AND BOLTS WITH A RUST RESISTANT LUBRICANT.
8. ALL BOLTS AND NUTS USED WITH PIPE SLEEVES SHALL BE BRUSH COATED HEAVILY AFTER FINAL TIGHTENING WITH BITUMASTIC COLD-APPLIED MATERIAL TO THOROUGHLY COVER ALL EXPOSED SURFACES OF BOLTS AND NUTS.

VALVE BOXES

1. ACCEPTABLE MANUFACTURER'S: MUELLER, CLOW, OR EQUAL.
2. CLOW F-2452 SLIDING TYPE, TWO PIECE, OR EQUAL.
3. 5 1/2 INCH SHAFT.
4. SIZE 664-A (40-60 INCH OVERALL LENGTH).
5. CAST IRON.
6. CLOW F-2490 LIDS OR EQUAL.
7. THE WORD "WATER" TO BE CAST INTO TOP OF COVERS, AND ARROW SHOWING DIRECTION OF OPENING.

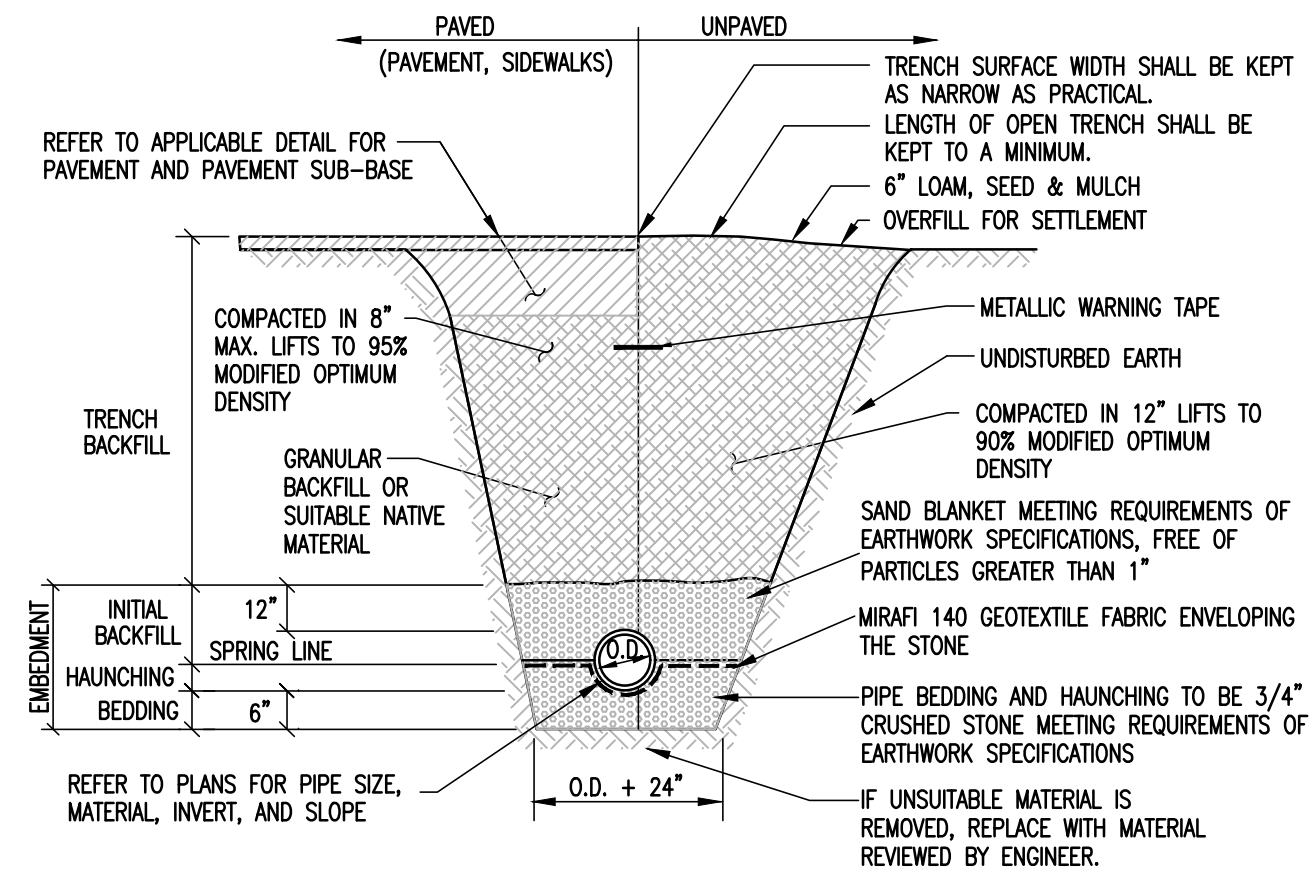
CONCRETE

1. CONCRETE SHALL HAVE:
 - A. MIN. COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS
 - B. AIR ENTRAINMENT OF 4% TO 6% BY VOLUME.
 - C. WATER CEMENT RATIO OF 0.49 LBS. WATER/CEMENT.
 - D. SLUMP OF 2 TO 4 INCHES.
2. CONCRETE SHALL NOT BE PLACED WHEN AMBIENT TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT OR MORE THAN 90 DEGREES FAHRENHEIT.
3. CONCRETE SHALL NOT BE DROPPED MORE THAN SIX FEET INSIDE A FORM.
4. MAINTAIN TEMPERATURE OF CONCRETE SURFACE AT MINIMUM 50 DEGREES FAHRENHEIT FOR 72 HOURS AFTER PLACING CONCRETE. PREHEAT ALL ENCLOSURES FOR A MINIMUM OF 2 HOURS TO MAINTAIN SURFACE TEMPERATURE OF 45 DEGREES FAHRENHEIT.
5. ALLOW TO SET AND CURE ALL THRUST BLOCKS, CONCRETE SUPPORTS, AND ANCHORS A MINIMUM OF 24 HOURS BEFORE BACKFILLING.
6. COMPLETELY CURE AND SET CONCRETE BEFORE ANY HYDROSTATIC OR LEAKAGE TESTING OF PIPELINE SYSTEMS.
7. NONSHRINK GROUT SHALL BE HALCO TRADEMARK, AS MANUFACTURED BY LEVIN & FINK INDUSTRIAL PRODUCTS.
8. DO NOT PLACE ANY MORTAR OR GROUT WHEN AMBIENT TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT.
9. MORTAR FOR MANHOLES SHALL CONSIST OF THE FOLLOWING:
 - A. CEMENT-TYPE II, ASTM C150.
 - B. HYDRATED LIME-TYPE N, ASTM C207.
 - C. SAND- ASTM C 33, FINE AGGREGATES FOR CONCRETE.
 - D. WATER-CLEAN, SUITABLE FOR DRINKING.

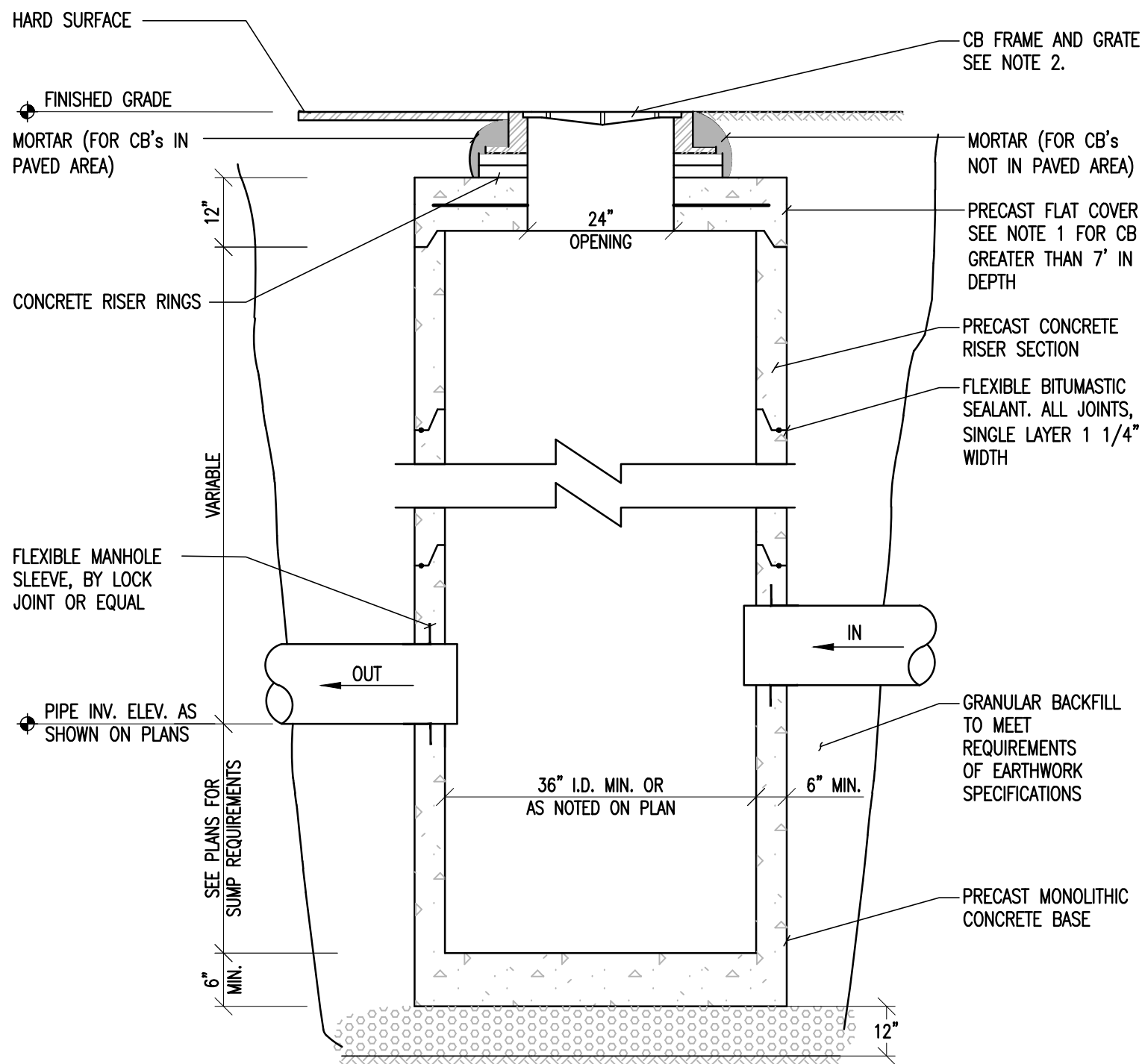
MIX (BY VOLUME): 1 PART CEMENT, 1/2 PART LIME, 4 1/2 PARTS SAND.

GENERAL

1. BEFORE ANY WATER LINE WORK IS COMMENCED BY THE CONTRACTOR, HE SHALL NOTIFY THE WATER
2. "AS BUILT" DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR AT THE TIME OF COMPLETION OF THE SYSTEM.



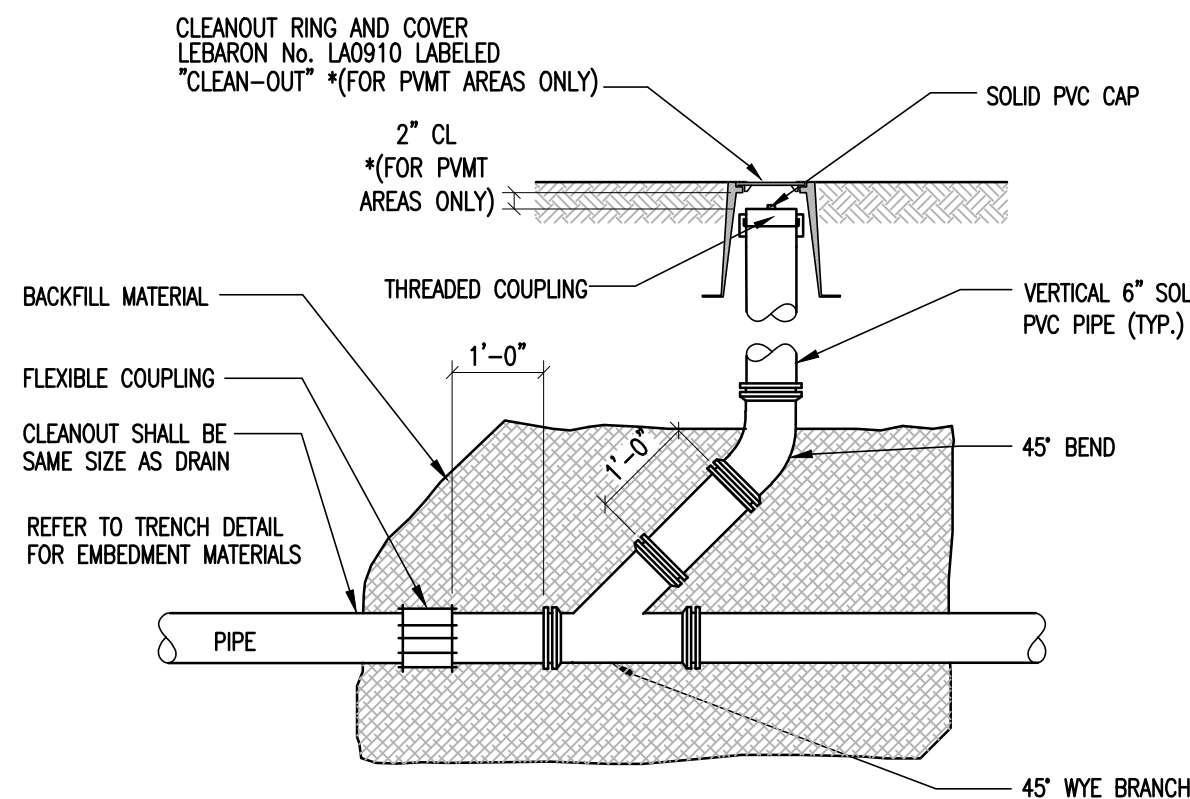
- TYPICAL STORM DRAIN TRENCH DETAIL**
- SCALE: NONE
- 1
1. UNLESS OTHERWISE NOTED, ASSUME CLASS "A" SOILS. PERFORM ALL EXCAVATIONS TO OSHA REQUIREMENTS.
2. BEDDING TO PROVIDE A FIRM, STABLE, CONTINUOUS AND UNIFORM SUPPORT FOR THE FULL LENGTH OF PIPE.
3. WHEN APPLICABLE, INSTALL PIPE WITH BELL ENDS DOWN SLOPE. PREVENT SEDIMENT FROM ENTERING NEW STORM DRAIN SYSTEM DURING CONSTRUCTION.
4. NO MECHANICAL TAMPERS SHALL BE USED DIRECTLY OVER PIPE TO INSURE PIPE IS NOT DAMAGED.
5. REFER TO INSULATION DETAIL FOR AREAS WHERE PROPER COVER CAN NOT BE ACHIEVED.



- CATCH BASIN NOTES**
1. IF DEPTH OF CATCH BASIN IS 7 FEET OR LESS FROM RIM TO CENTERLINE INVERT THEN A FLAT TOP WILL BE INSTALLED. IF DEPTH OF CATCH BASIN FROM RIM TO CENTERLINE INVERT IS MORE THAN 7 FEET THEN A CONICAL TOP WILL BE INSTALLED.
2. PROVIDE A LEBARON 24"x24" TYPE E OR APPROVED EQUIVALENT, 3 FLANGE GRATE AND FRAME NEXT TO CURBS AND 4 FLANGE GRATE AND FRAME AT ALL OTHER LOCATIONS.
3. CATCH BASIN AND GRATE SHALL BE DESIGNED FOR H2O LOADING.
4. CATCH BASIN SHALL BE PRECAST CONCRETE AS MANUFACTURED BY CAMP PRECAST, SD IRELAND OR APPROVED EQUIVALENT.

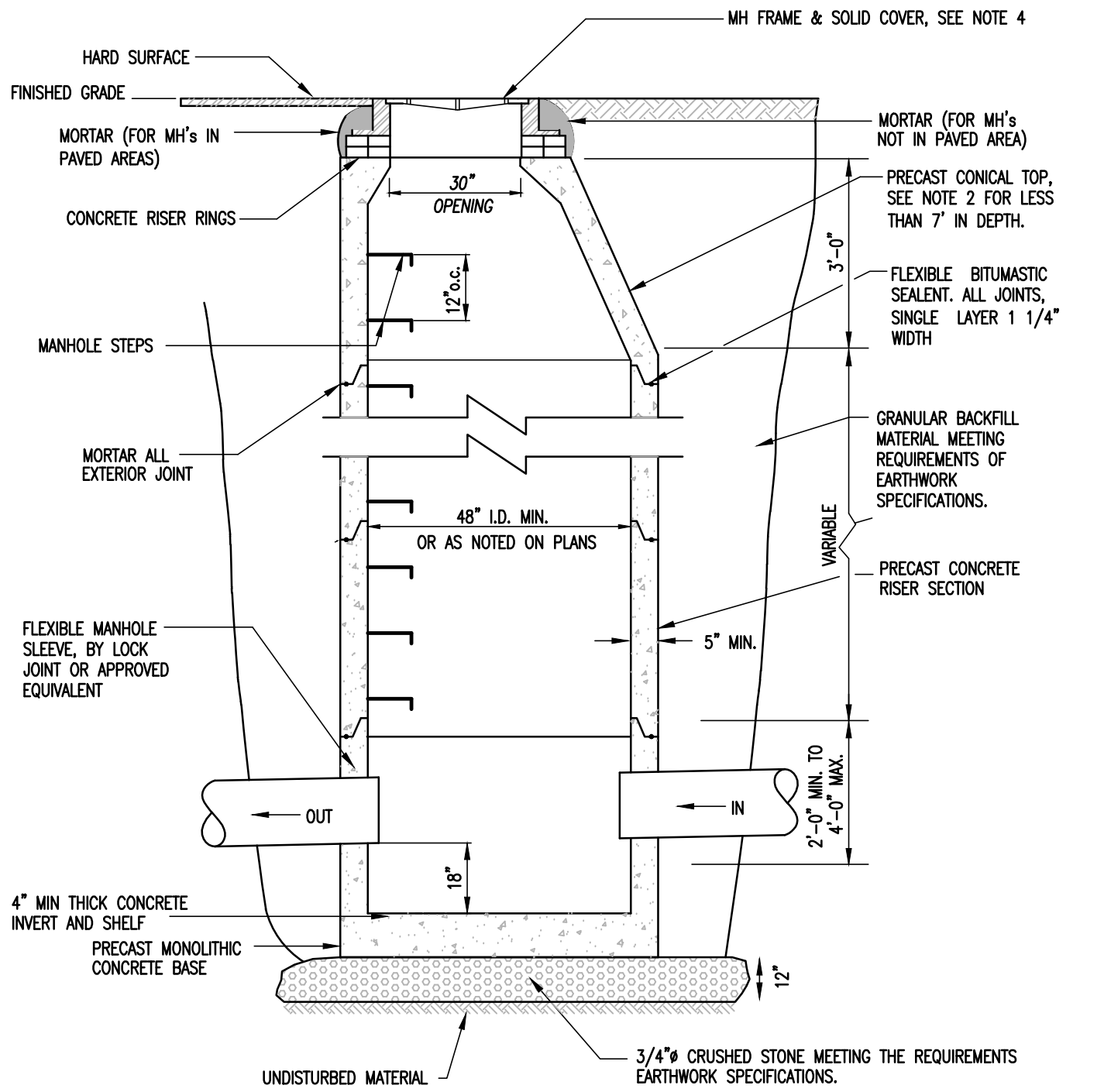
CATCH BASIN DETAIL

SCALE: NONE



CLEANOUT DETAIL

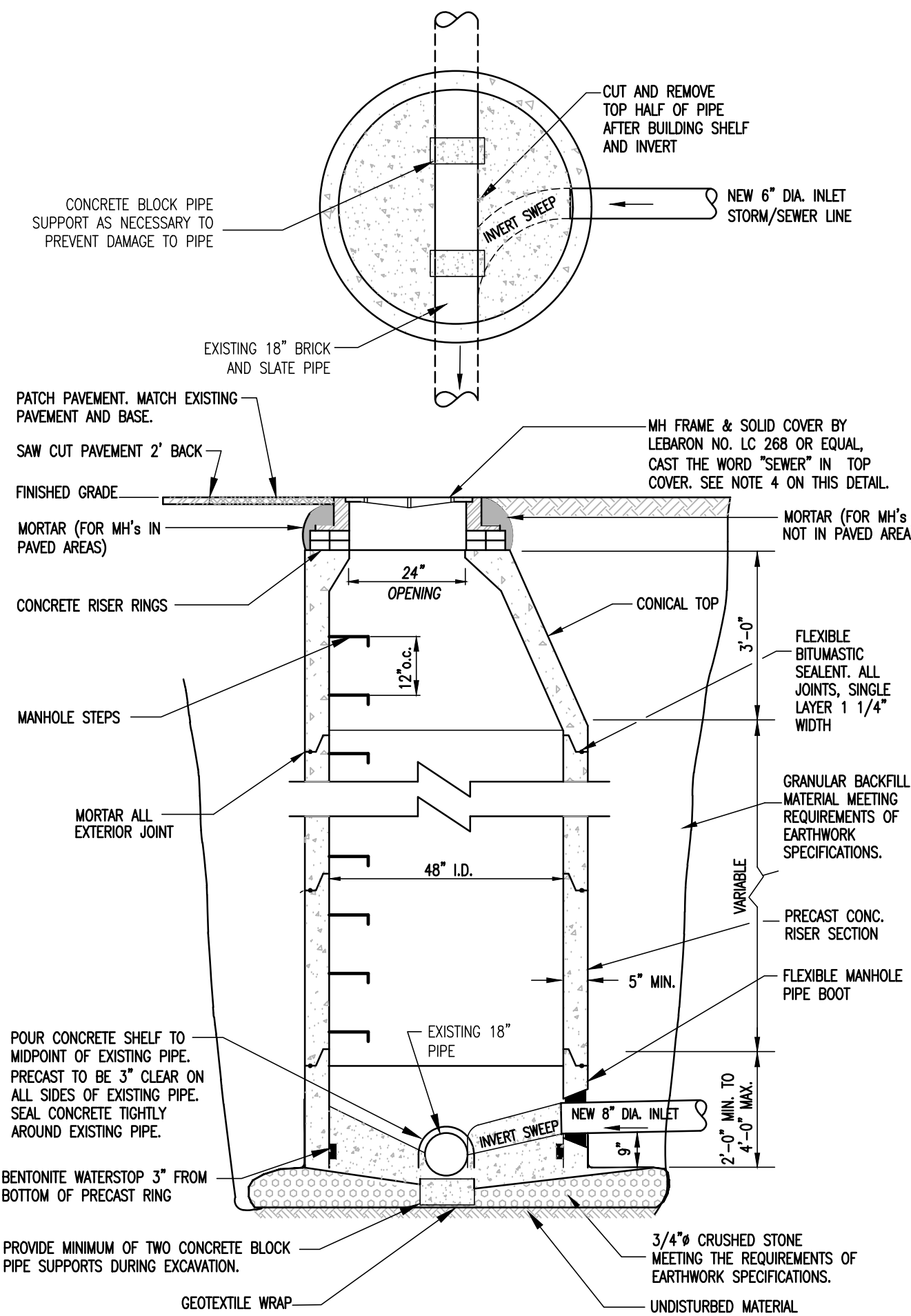
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- STORM MANHOLE NOTES**
1. PROVIDE SMOOTH SWEEPING TRANSITIONS BETWEEN INVERTS OF INTERSECTING PIPE.
2. IF DEPTH OF MANHOLE IS 7 FT. OR LESS FROM RIM TO CENTERLINE INVERT, THEN A FLAT TOP WILL BE INSTALLED. IF DEPTH OF MANHOLE FROM RIM TO CENTERLINE INVERT IS MORE THAN 7 FT., THEN A CONICAL TOP WILL BE INSTALLED.
3. MANHOLE AND COVER SHALL BE DESIGNED FOR H2O LOADING.
4. PROVIDE A NEENAH FOUNDRY R-1564 OR APPROVED EQUIVALENT, CAST THE WORD "STORM" IN TOP COVER.
5. MANHOLE SHALL BE PRECAST CONCRETE SUPPLIED BY AN APPROVED MANUFACTURER.

MANHOLE DETAIL

NOT TO SCALE

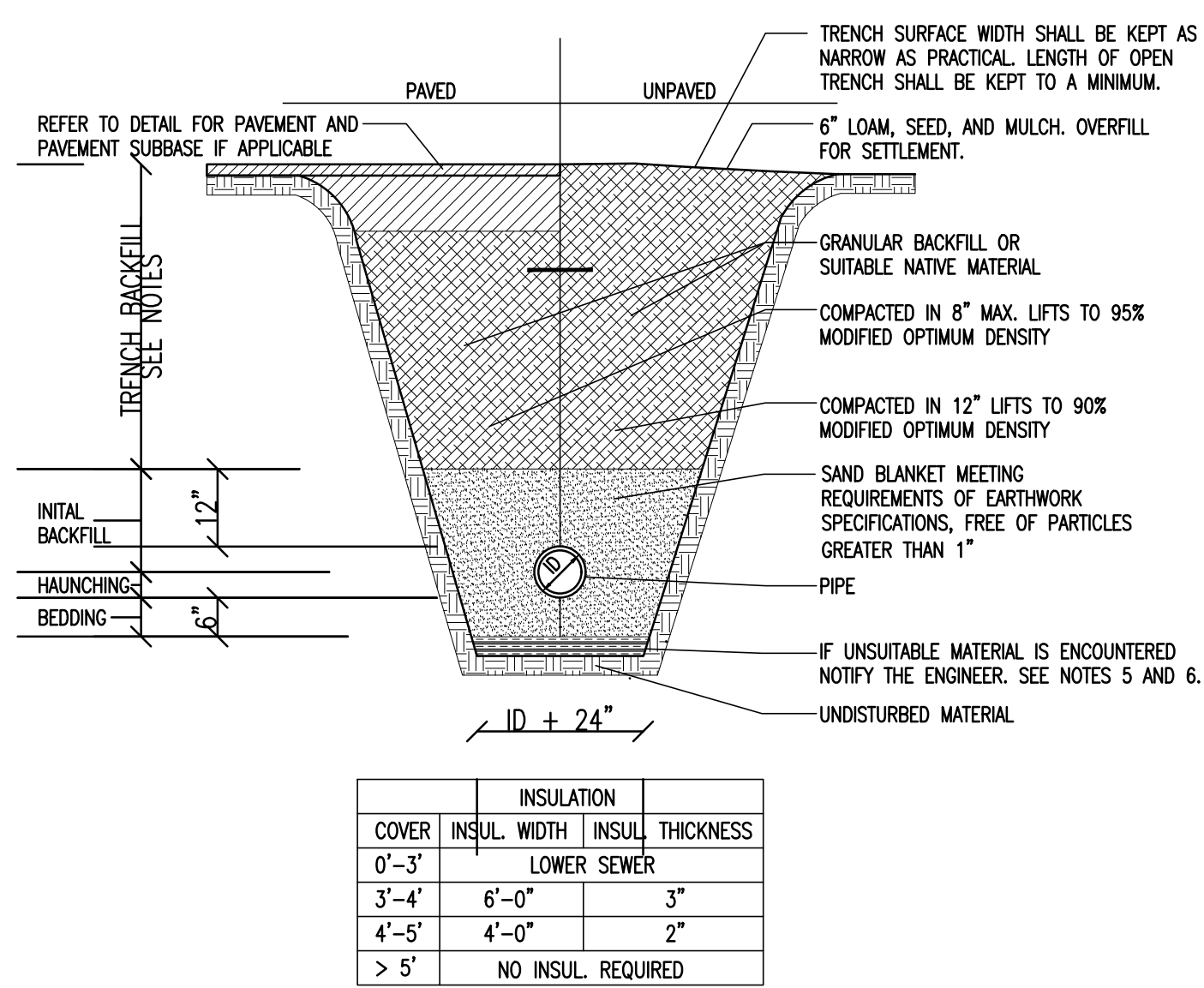


MANHOLE NOTES

1. PROVIDE SMOOTH SWEEPING TRANSITIONS BETWEEN INVERTS OF INTERSECTING PIPE.
2. IF DEPTH OF MANHOLE IS 7 FT. OR LESS FROM RIM TO CENTERLINE INVERT, THEN A FLAT TOP WILL BE INSTALLED. IF DEPTH OF MANHOLE FROM RIM TO CENTERLINE INVERT IS MORE THAN 7 FT., THEN A CONICAL TOP WILL BE INSTALLED.
3. MANHOLE AND COVER SHALL BE DESIGNED FOR H2O LOADING.

DOGHOUSE MANHOLE DETAIL

NOT TO SCALE



SANITARY SEWER TRENCH NOTES:

1. UNLESS OTHERWISE NOTED, ASSUME CLASS "C" SOILS. PERFORM ALL EXCAVATIONS TO OSHA REQUIREMENTS.
2. BEDDING TO PROVIDE A FIRM, STABLE, CONTINUOUS AND UNIFORM SUPPORT FOR FULL LENGTH OF PIPE.
3. FOR BUILDING SEWERS THE MINIMUM DEPTH TO THE TOP OF THE PIPE SHALL BE 4'-0". OTHER BUILDING SEWERS ARE TO BE INSTALLED AT A DEPTH LESS THAN 3'-0" UNDER DRIVEWAYS, EXTRA HEAVY CAST IRON OR OTHER HIGH STRENGTH PIPE SHALL BE USED. OTHERWISE, REFER TO INSULATION OVER SHALLOW SEWER LINE DETAIL.
4. FOR SEWER COLLECTION SYSTEMS THE MINIMUM DEPTH TO THE TOP OF THE PIPE SHALL BE 6'-0". OTHERWISE, REFER TO INSULATION OVER SHALLOW SEWER LINE DETAIL.
5. BACKFILL SHALL BE OF A SUITABLE MATERIAL REMOVED FROM EXCAVATION EXCEPT WHERE OTHER MATERIAL IS SPECIFIED. DEBRIS, FROZEN MATERIAL, LARGE CLODS OR STONES, ORGANIC MATTER, OR OTHER UNSTABLE MATERIALS SHALL NOT BE USED FOR BACKFILL WITHIN TWO FEET OF THE TOP OF THE PIPE.
6. LEDGE, ROCK, BOULDERS AND LARGE STONES SHALL BE REMOVED TO PROVIDE A MINIMUM CLEARANCE OF FOUR INCHES BELOW AND ON EACH SIDE OF ALL PIPES.

SANITARY SEWER TRENCH

6

SITE/EARTHWORK SPECIFICATIONS

1. PRIOR TO THE START OF THE WORK, A PRE-CONSTRUCTION MEETING WILL BE HELD WITH THE CONTRACTOR, OWNER, AND PROJECT ENGINEER TO REVIEW PROCEDURES, AND IDENTIFY RESPONSIBILITIES. UNLESS STATED OTHERWISE, ALL MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE NEW YORK STATE STANDARD SPECIFICATIONS.
2. CLEARING AND GRUBBING - ALL TOPSOIL AND UNSUITABLE MATERIALS SHALL BE REMOVED FROM IMPACTED AREAS.
3. COMPACTION SHALL BE PERFORMED USING VIBRATORY ROLLERS AND WATER IN LIFTS OF NO GREATER THAN SIX INCHES. COMPACTION SHALL BE PERFORMED UNTIL THE REQUIRED DENSITY IS ACHIEVED. DENSITY SHALL BE DETERMINED BY AASHTO T238 METHOD AND SHALL NOT BE LESS THAN 95 PERCENT OF THE MAXIMUM DENSITY FOR PAVED AREAS AND 90 PERCENT OF THE MAXIMUM DENSITY FOR NON PAVED AREAS DETERMINED IN ACCORDANCE WITH AASHTO T99.
4. COMPACTION TESTING SHALL BE PERFORMED FOR EVERY LAYER OF MATERIAL PLACED AND FOR EVERY 1000 SQUARE FEET OF AREA.
5. ALL REMAINING DISTURBED AREAS WITHIN THE RIGHT OF WAY SHALL BE FERTILIZED AND SEEDED IN ACCORDANCE WITH THE NEW YORK STATE SPECIFICATIONS.
6. THE SEEDING OF SLOPES OF 3:1 AND GREATER AND DITCHES SHALL REQUIRE THE USE OF EROSION CONTROL MATTING.
7. COST OF INITIAL INSPECTION AND TESTING SHALL BE PAID BY THE OWNER. SUBSEQUENT TESTING OF MATERIALS NOT PASSING INITIAL INSPECTION, SHALL BE PAID BY THE CONTRACTOR.
8. ALL EARTHWORK MATERIALS SHALL BE OBTAINED FROM APPROVED SOURCES. THEY SHALL CONSIST OF SATISFACTORILY GRADED, FREE DRAINING MATERIAL, REASONABLY FREE FROM LOAM, SILT, CLAY AND ORGANIC MATERIAL. EARTHWORK MATERIALS SHALL MEET THE REQUIREMENTS OF THE FOLLOWING TABLES:

A. SAND BLANKET/BEDDING:	SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
	2 INCHES	100
	1 1/2 INCHES	90 - 100
	1 1/4 INCH	70 - 100
	No. 4	60 - 100
B. FINE CRUSHED GRAVEL (NYSDOT SECTION 733-04, TYPE 2):	SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
	2 INCHES	100
	1 1/2 INCHES	25 - 60
	No. 40	5 - 40
	No. 200	0 - 10
C. GRANULAR BACKFILL (COARSE CRUSHED GRAVEL):	SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
	4 INCHES	100
	1 1/4 INCH	35 - 65
	No. 200	0 - 10
D. #2 STONE:	SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
	1 1/2 INCHES	100
	1 INCH	90 - 100
	1/2 INCH	0 - 15
E. TOPSOIL:	SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
	2 INCHES	100
	1 1/2 INCHES	25 - 60
	No. 40	5 - 40
	No. 200	0 - 10

- GENERAL QUALIFICATIONS:
- COMPOSITION: USE AS A PLANTING MEDIUM FOR THE PROJECT. ONLY FERTILE, FRAGILE, WELL-DRAINED SOIL, OF UNIFORM QUALITY, FREE OF STONES OVER 1 IN. DIAMETER, STICKS, OILS, CHEMICALS, PLASTER, CONCRETE, PESTS AND INFESTATIONS AND OTHER DELETERIOUS MATERIALS. SUBMIT SOIL ANALYSIS FOR IMPORT TOPSOIL.
- VERIFICATION: QUANTITY OF TOPSOIL TO COMPLETE THE WORK SHALL BE CALCULATED BY THE CONTRACTOR AND INCLUDED IN THEIR BASE BID PRICE.
- ANALYSIS: OBTAIN AN AGRICULTURAL SUITABILITY ANALYSIS AND SOIL TEXTURE ANALYSIS OF THE PROPOSED TOPSOIL FROM AN ACCREDITED SOILS LABORATORY AT CONTRACTOR'S COST.
- ACCEPTANCE: SUBMIT SOILS ANALYSIS AND RECOMMENDATIONS TO THE LANDSCAPE ARCHITECT/ENGINEER FOR ACCEPTANCE. AMEND TOPSOIL PER ACCEPTED SOILS ANALYSIS REPORT.
- SAMPLES: THE LANDSCAPE ARCHITECT/ENGINEER RESERVES THE RIGHT TO TAKE SAMPLES OF THE IMPORTED TOPSOIL DELIVERED TO THE SITE FOR CONFORMANCE TO THE SPECIFICATIONS.
- REJECTED TOPSOIL: IMMEDIATELY REMOVE REJECTED TOPSOIL OFF THE SITE AT CONTRACTOR'S EXPENSE.
- STOCKPILING: IF STOCKPILING IS REQUESTED, LOCATIONS AND AMOUNTS OF STOCKPILES WILL BE DESIGNATED BY LANDSCAPE ARCHITECT/ENGINEER.

SEWER NOTES

A-01. BUILDING SEWERS

- A. MATERIALS: THE BUILDING SEWER SHALL BE CONSTRUCTED IN A MANNER WHICH WILL PREVENT LEAKING, BREAKING OR CLOGGING. ACCEPTABLE MATERIALS FOR THE SEWER ARE RUBBER-RING-JOINTED PVC GRAVITY SEWER PIPE, SDR35 ASTM D3034.
- B. SIZING AND SLOPE: MINIMUM BUILDING SEWER SIZE IS 4 INCHES (UNLESS SHOWN ON THE PLAN) AND A MINIMUM SLOPE IS 1/4 INCH PER FOOT.
- C. MANHOLES: BUILDING SEWERS DISCHARGING TO A COLLECTION SEWER SHALL BE CONNECTED THROUGH A MANHOLE OR WITH A WYE FITTING SO AS TO DIRECT FLOW AND MINIMIZE IN-LINE TURBULENCE.
- D. CLEANOUTS: CLEANOUTS SHALL BE PROVIDED AT EACH HORIZONTAL CHANGE IN DIRECTION OF THE BUILDING SEWER GREATER THAN 45 DEGREES, NOT GREATER THAN EVERY 100' AND WHERE INDICATED ON THE DESIGN DRAWINGS. BUILDING SEWER CHANGES IN DIRECTION WHICH EXCEED 45 DEGREES SHOULD BE MADE WITH TWO 45 DEGREE ELLS OR LONG SWEEP FITTINGS. MANHOLES ARE ACCEPTABLE IN LIEU OF CLEANOUTS. WHERE BUILDING SEWERS ARE TO BE INSTALLED AT A DEPTH OF LESS THAN 3 FEET UNDER DRIVEWAYS ARE ANTICIPATED, EXTRA HEAVY CAST IRON PIPE SHALL BE USED.
- E. LEAKAGE: BUILDING SEWERS SHALL MEET THE LEAKAGE REQUIREMENTS PRESCRIBED IN THE STATE OF NEW YORK SPECIFICATIONS. SEE "A-02, J" BELOW FOR MORE DETAIL.

A-02. SEWER COLLECTION SYSTEMS:

- A. A SEWER COLLECTION SYSTEM IS THAT SYSTEM OF SEWERS THAT TRANSPORT WASTEWATER FROM BUILDING SEWERS TO THE WASTEWATER TREATMENT/DISPOSAL SYSTEM.
- B. NO CONNECTIONS OF ROOF DRAINS, AREA DRAINS, FOUNDATION DRAINS, CELLAR DRAINS OR OTHER CLEAN WATER SOURCES OR ANY STORM DRAINS WILL BE ALLOWED TO BUILDING OR COLLECTION SEWERS.
- C. THE SIZE OF COLLECTION SEWERS SHALL BE AS SHOWN ON THESE DRAWINGS.
- D. DEPTH: SEWERS SHALL BE SUFFICIENTLY DEEP TO PREVENT FREEZING. RIGID FOAM INSULATION SHALL BE USED, WHERE INDICATED ON DRAWINGS.
- E. SLOPE, VELOCITY: ALL SEWERS SHALL BE INSTALLED WITH NOT LESS THAN THE SLOPES SHOWN BELOW:

PIPE SIZE (INCHES)	SLOPE (FEET/100 FEET)
6"	0.63
8"	0.40

- F. CHANGES IN PIPE SIZE: WHEN A SMALLER SEWER JOINS A LARGE ONE, THE INVERT OF THE LARGER SEWER SHALL BE LOWERED SUFFICIENTLY TO MAINTAIN THE SAME ENERGY GRADIENT.
- G. MATERIAL: PVC SDR 35, ASTM D3034, WITH PUSH-ON GASKETED JOINTS. GASKETS SHALL CONFORM TO ASTM D3212. SEWER JOINTS SHALL BE CONSTRUCTED TO MINIMIZE INFILTRATION AND TO PREVENT THE ENTRANCE OF ROOTS INTO THE SYSTEM.
- H. TRENCHING: LEDGE, ROCK, BOULDERS AND LARGE STONES SHALL BE REMOVED TO PROVIDE A MINIMUM CLEARANCE OF FOUR INCHES BELOW AND ON EACH SIDE OF ALL PIPES.
- I. BEDDING: SEE TRENCH DETAILS THIS DRAWING FOR MATERIALS. TRENCH BACKFILL SHALL BE OF A SUITABLE NATIVE MATERIAL, FREE FROM DEBRIS, FROZEN MATERIAL, LARGE CLODS OR STONES, ORGANIC MATTER, OR OTHER UNSTABLE MATERIALS.
- J. LEAKAGE TESTS: UPON COMPLETION OF SEWER MAIN CONSTRUCTION, THE SEWER LINE SHALL BE TESTED IN ACCORDANCE WITH THE STATE OF NEW YORK SPECIFICATIONS.

LEAKAGE TESTS FOR GRAVITY SEWERS

PERFORM A PRESSURIZED AIR TEST ON THE GRAVITY LINE IN ACCORDANCE WITH THE LATEST VERSION OF DESIGN STANDARDS FOR WASTEWATER TREATMENT WORKS ON EACH SECTION OF THE GRAVITY SEWER. THE ENGINEER SHALL BE GIVEN 24 HOURS NOTICE BEFORE THE TEST IS CONDUCTED. TEST MUST BE WITNESSED BY THE ENGINEER.

PLUG ALL OPENINGS IN THE TEST SECTION. ADD AIR UNTIL THE INTERNAL PRESSURE OF THE LINE IS RAISED TO APPROXIMATELY 4.0 POUNDS/SQUARE INCH (PSI) GREATER THAN THE AVERAGE PRESSURE OF ANY GROUND WATER. AFTER THIS PRESSURE IS REACHED, ALLOW THE PRESSURE TO STABILIZE. THE PRESSURE WILL NORMALLY DROP AS THE AIR TEMPERATURE STABILIZES. THIS USUALLY TAKES 2 TO 5 MINUTES DEPENDING ON THE PIPE SIZE. THE PRESSURE MAY BE REDUCED TO 3.5 PSI BEFORE STARTING THE TEST.

START THE TEST WHEN THE PRESSURE HAS STABILIZED AND IS AT OR ABOVE THE STARTING TEST PRESSURE OF 3.5 PSI ABOVE THE PIPE. IF THE PRESSURE DROPS MORE THAN 1.0 PSI DURING THE TEST TIME, THE LINE IS PRESUMED TO HAVE FAILED THE TEST. IF A 1.0 PSI DROP DOES NOT OCCUR WITHIN THE TEST TIME, THE LINE HAS PASSED THE TEST. THE TEST TIME SHALL BE DERIVED FROM THE FOLLOWING TABLE. IF THE SECTION OF LINE TO BE TESTED INCLUDES MORE THAN ONE PIPE SIZE, CALCULATE THE TEST TIME FOR EACH SIZE AND ADD THE TEST TIMES TO ARRIVE AT THE TOTAL TEST TIME FOR THE SECTION.

PIPE SIZE (INCHES)	T (TIME) (MIN/100 FT.)
3	0.3
4	0.3
6	0.7
8	1.2
10	1.5
12	1.8

- K. INSTALLATION: PIPE SHALL BE LAID WITH BELL ENDS FACING UPGRADE AND LAYING SHALL START AT THE DOWNGRADE END.

L. WATER LINE SEPARATION

a. HORIZONTAL SEPARATION: SEWERS SHALL BE LAID FLAT AT LEAST TEN FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER LINE. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. WHERE IMPOSSIBLE OR IMPRACTICABLE, DUE TO LEDGE, BOULDERS OR OTHER UNUSUAL CONDITIONS, TO MAINTAIN THE TEN FOOT SEWER/WATER PIPE HORIZONTAL SEPARATION BETWEEN SEWER AND WATER LINES, THE WATER LINE MAY BE IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF IN THE SEWER TRENCH PROVIDED THAT THE BOTTOM OF THE WATER LINE IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER. WHEREVER IMPOSSIBLE OR IMPRACTICAL TO MAINTAIN THE 18 INCH VERTICAL SEPARATION, THE SEWER LINE SHALL BE CONSTRUCTED TO NORMAL WATER LINE STANDARDS AND PRESSURE TESTED TO 50 PSI FOR 15 MINUTE PRIOR TO BACKFILLING. NO LEAKAGE SHALL BE ALLOWED FOR THIS TEST.

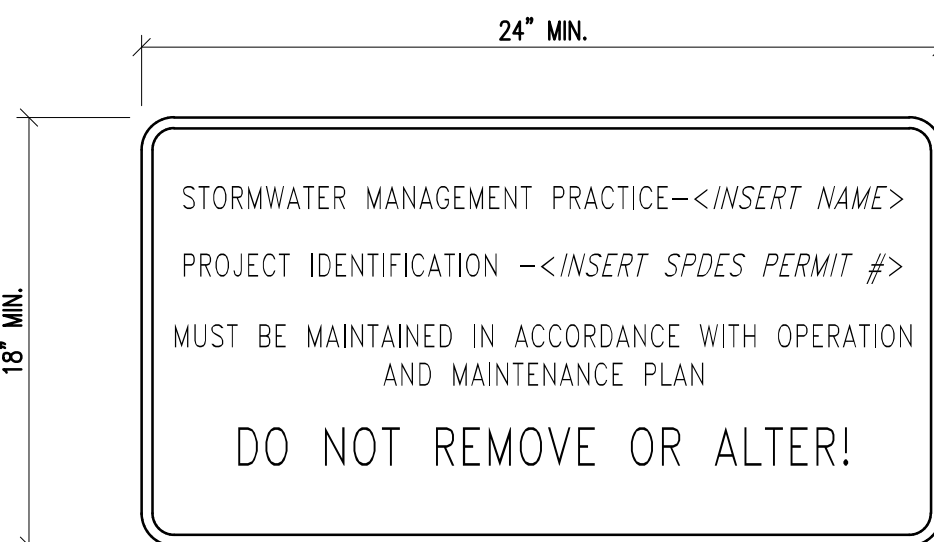
- b. CROSSINGS: SEWERS CROSSING WATER MAINS SHALL BE LAID BENEATH THE WATER MAIN WITH AT LEAST 18 INCHES VERTICAL CLEARANCE BETWEEN THE OUTSIDE OF THE SEWER AND THE OUTSIDE OF THE WATER MAIN. WHEN IT IS IMPOSSIBLE TO MAINTAIN THE 18 INCH VERTICAL SEPARATION:
1. THE CROSSING SHALL BE ARRANGED SO THAT ONE FULL LENGTH OF SEWER IS CENTERED ABOVE OR BELOW THE WATER LINE WITH SEWER JOINTS AS FAR AWAY AS POSSIBLE FROM WATER JOINTS.
 2. THE SEWER PIPE MUST BE CONSTRUCTED TO WATER MAIN STANDARDS FOR A MINIMUM DISTANCE OF 20 FEET EITHER SIDE OF THE CROSSING OR A TOTAL OF THREE PIPE LENGTHS, WHICHEVER IS GREATER.
 3. THE SECTION CONSTRUCTED TO WATER MAIN STANDARDS MUST BE PRESSURE TESTED TO MAINTAIN 50 PSI FOR 15 MINUTES WITHOUT LEAKAGE PRIOR TO BACKFILLING BEYOND ONE FOOT ABOVE THE PIPE TO ASSURE WATER TIGHTNESS.
 4. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.

A-03. MANHOLES

- A. DIAMETER: THE MINIMUM DIAMETER OF MANHOLES SHALL BE 48 INCHES; LARGE DIAMETERS ARE PREFERRED FOR CONNECTION TO LARGE DIAMETER SEWERS. A MINIMUM ACCESS DIAMETER OF 24 INCHES SHALL BE PROVIDED.
- B. FLOW CHANNEL: FLOW CHANNELS SHALL BE PROVIDED IN THE BASE OF ALL MANHOLES AND THE FLOW CHANNEL THROUGH MANHOLES SHOULD BE MADE TO CONFORM IN SHAPE AND SLOPE TO THAT OF THE SEWERS.
- C. MANHOLES SHALL BE OF THE PRE-CAST CONCRETE OR POUR-IN PLACE CONCRETE TYPE. MANHOLES SHALL BE WATERPROOFED ON THE EXTERIOR.
- D. INLET AND OUTLET PIPES SHALL BE JOINED TO THE MANHOLE WITH A RUBBER-GASKETED FLEXIBLE WATER TIGHT CONNECTION THAT ALLOWS DIFFERENTIAL SETTLEMENT OF THE PIPE AND MANHOLE WALL TO TAKE PLACE.
- E. ALL MANHOLES SHALL BE TESTED FOR LEAKAGE. LEAKAGE TESTING OF GRAVITY SEWERS UTILIZING THE WATER TESTING PROCEDURES TAKES INTO ACCOUNT THE LEAKAGE FROM ONE MANHOLE IN THE TEST SECTION. OTHERWISE, MANHOLES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:

AFTER THE MANHOLE HAS BEEN ASSEMBLED IN PLACE, ALL LIFTING HOLES AND EXTERIOR JOINTS SHALL BE FILLED WITH AND POINTED WITH AN APPROVED NON-SHRINKING MORTAR. ALL PIPES AND OTHER OPENINGS INTO THE MANHOLE SHALL BE SUITABLY PLUGGED AND THE PLUGS PLACED TO PREVENT BLOWOUT.

EACH MANHOLE SHALL BE CHECKED FOR INFILTRATION BY FILLING WITH WATER TO THE TOP OF THE CONE SECTION. A STABILIZATION PERIOD OF ONE HOUR SHALL BE PROVIDED TO ALLOW FOR ABSORPTION. AT THE END OF THIS PERIOD, THE MANHOLE SHALL BE REFILLED TO THE TOP OF THE CONE. IF NECESSARY, AND THE MEASURING TIME OF AT LEAST SIX HOURS BEGUN. AT THE END OF THE TEST PERIOD, THE MANHOLE SHALL BE REFILLED TO THE TOP OF THE CONE MEASURING THE VOLUME OF WATER ADDED. THIS AMOUNT SHALL BE CONVERTED TO A 24 HOUR RATE AND THE LEAKAGE DETERMINED ON THE BASIS OF DEPTH. THE LEAKAGE FOR EACH MANHOLE SHALL NOT EXCEED ONE GALLON PER VERTICAL FOOT FOR A 24 HOUR PERIOD FOR INFILTRATION AND THERE SHALL BE NO VISIBLE INFILTRATION.



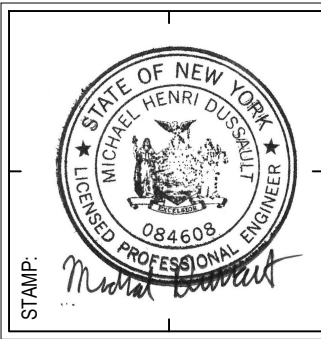
NOTES:

1. SIGN TEXT SHOWN ON THIS DETAIL IS REQUIRED PER NEW YORK STATE STORMWATER MANAGEMENT MANUAL. CONTRACTOR TO COORDINATE SIGN TEXT SIZE, STYLE, ETC. AND SIGN LOCATION WITH OWNER AND ENGINEER.
- MOUNT SIGN ON POST IF NOT AFFIXED TO THE PROPOSED BUILDING. SEE TYPICAL SIGN POST DETAIL.

STORMWATER PRACTICE SIGN DETAIL

NOT TO SCALE

7



REVISION/DESCRIPTION	DATE	CONSULTANT
No.		

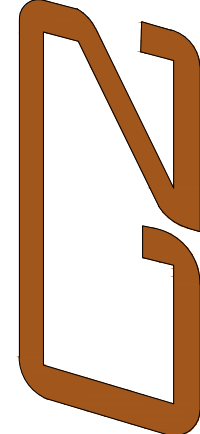
STORMWATER DETAILS (1 OF 2) & SANITARY DETAILS

New Construction
Hackett Boulevard Apartments
Albany, NY 12209
42 Besco Avenue

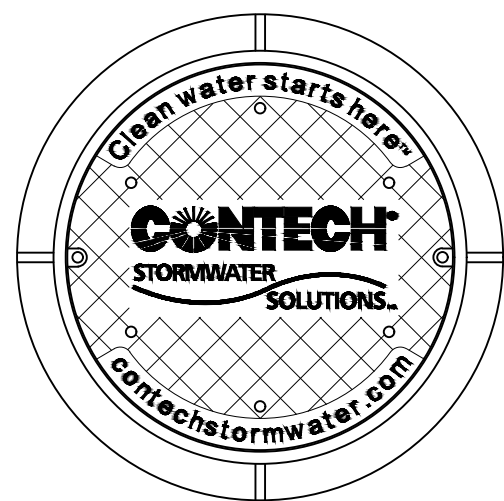
DRAWN BY:	MJD
DATE:	2/12/2021
SCALE:	AS NOTED
JOB No.:	EV# 20483
SHEET:	C3.1

PLOT DATE: 2/12/2021 9:00 AM

C2 ARCHITECTURE, PC
WWW.C2-DESIGNGROUP.COM
SCHENECTADY, NY 12302 | 518.320.8250
24 AIRPORT ROAD |



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FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS		
STRUCTURE ID	ST-3	
WATER QUALITY FLOW RATE (CFS OR L/s)	0.84 CFS	
PEAK FLOW RATE (CFS OR L/s)	3.73 CFS	
RETURN PERIOD OF PEAK FLOW (YRS)	100 YR	
SCREEN APERTURE (AND OR #/100)	200	
PIPE DATA: 12" MATERIAL DIAMETER		
INLET PIPE 1	163.10	HDPE
INLET PIPE 2	N/A	N/A
OUTLET PIPE	163.10	HDPE
RIM ELEVATION	168.90	
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	TBD	TBD
NOTES/SPECIAL REQUIREMENTS:		
* PER ENGINEER OF RECORD		

GENERAL NOTES

1. DETAIL SHOWN IS FROM CONTECH AND SHOULD ONLY BE USED FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO SUBMIT SHOP DRAWINGS WITH CONTECH DESIGN.
2. ALL CONTECH UNITS SHALL BE COORDINATED WITH A REPRESENTATIVE FROM CONTECH ENGINEERED SOLUTIONS TO VERIFY SIZE AND CONFIGURATION OF CONTECH UNIT.
3. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
4. DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
5. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH STORMWATER SOLUTIONS REPRESENTATIVE. www.contechstormwater.com
6. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
7. STRUCTURE AND CASTINGS SHALL MEET AASHTO HS20 LOAD RATING.
8. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

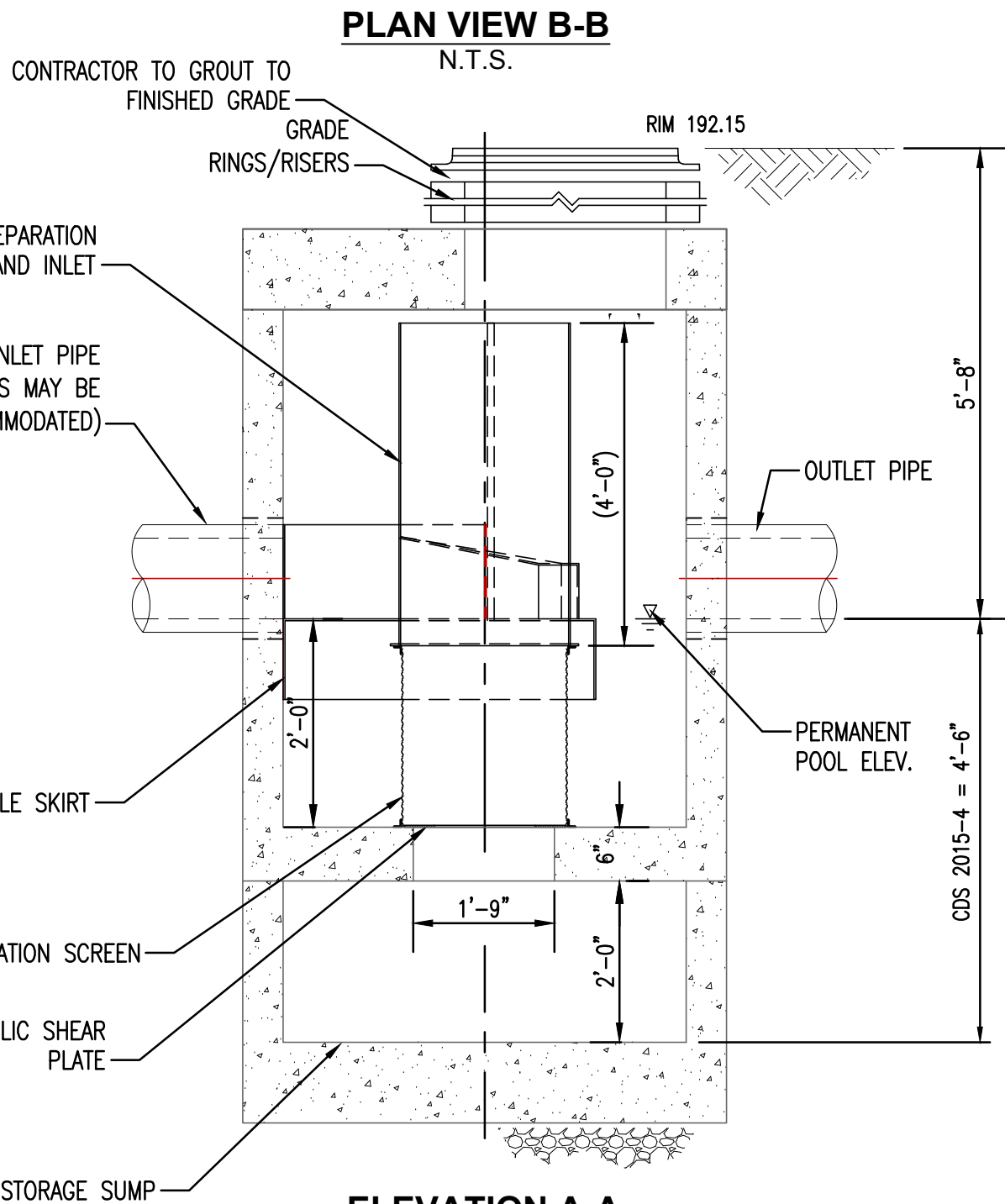
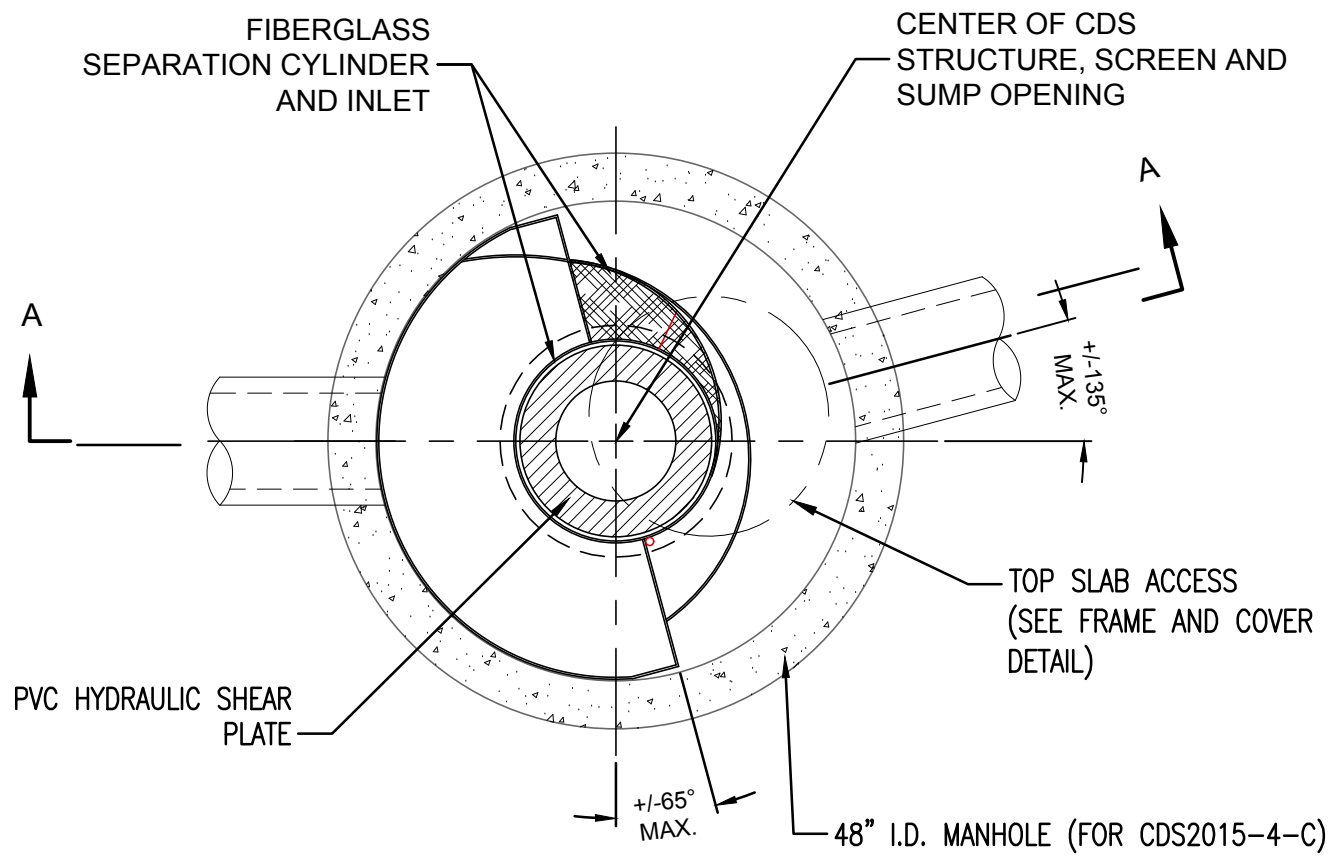
INSTALLATION NOTES

1. ANY SUB-BASE, BACKFILL, DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CDS2015-4 DESIGN NOTES

CDS2015-4 RATED TREATMENT CAPACITY IS 0.7 CFS, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 10.0 CFS. IF THE SITE CONDITIONS EXCEED 10.0 CFS, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

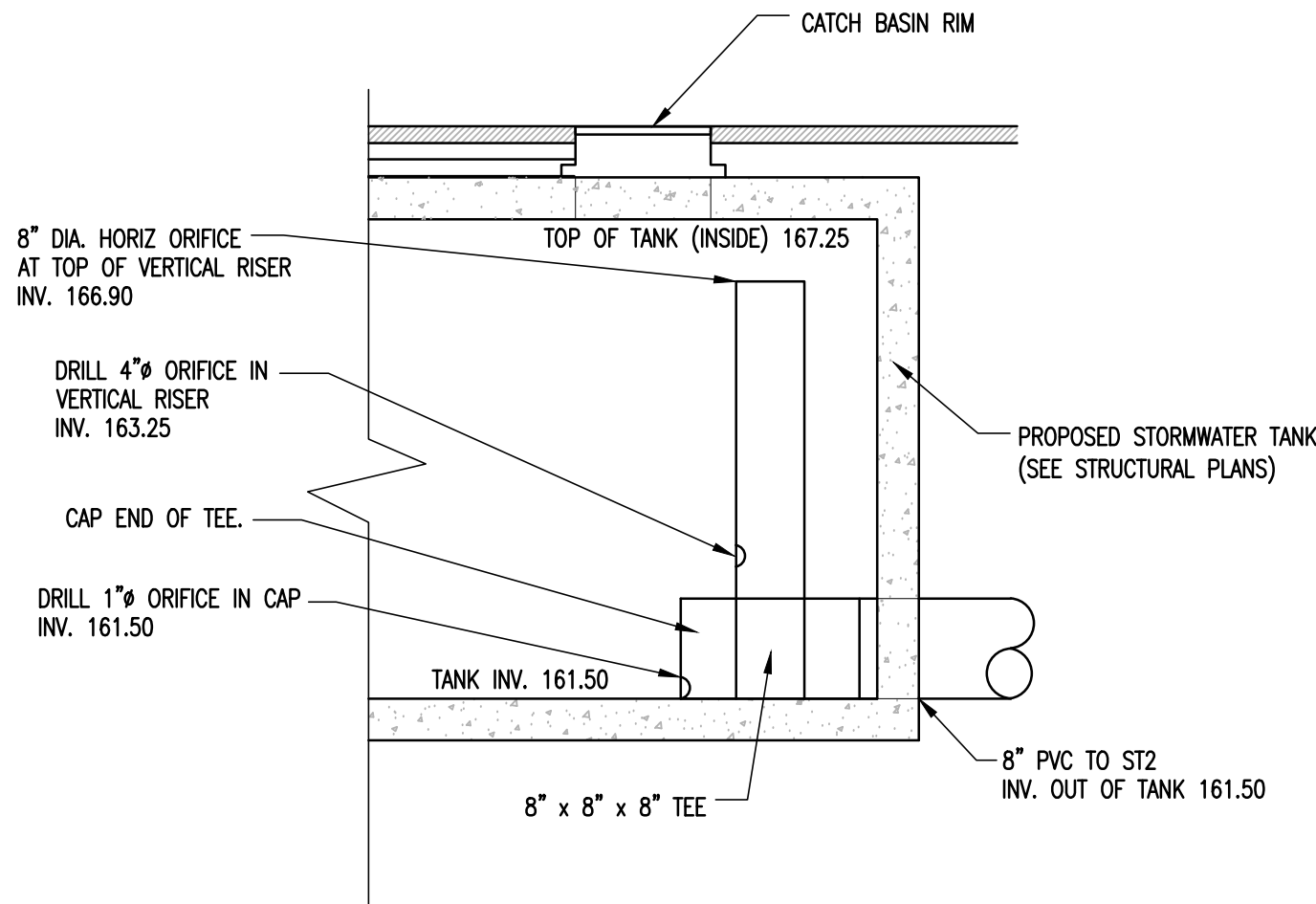
THE STANDARD CDS2015-4 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.



STRUCTURE ST5: CONTECH CDS DETAIL

SCALE: NONE

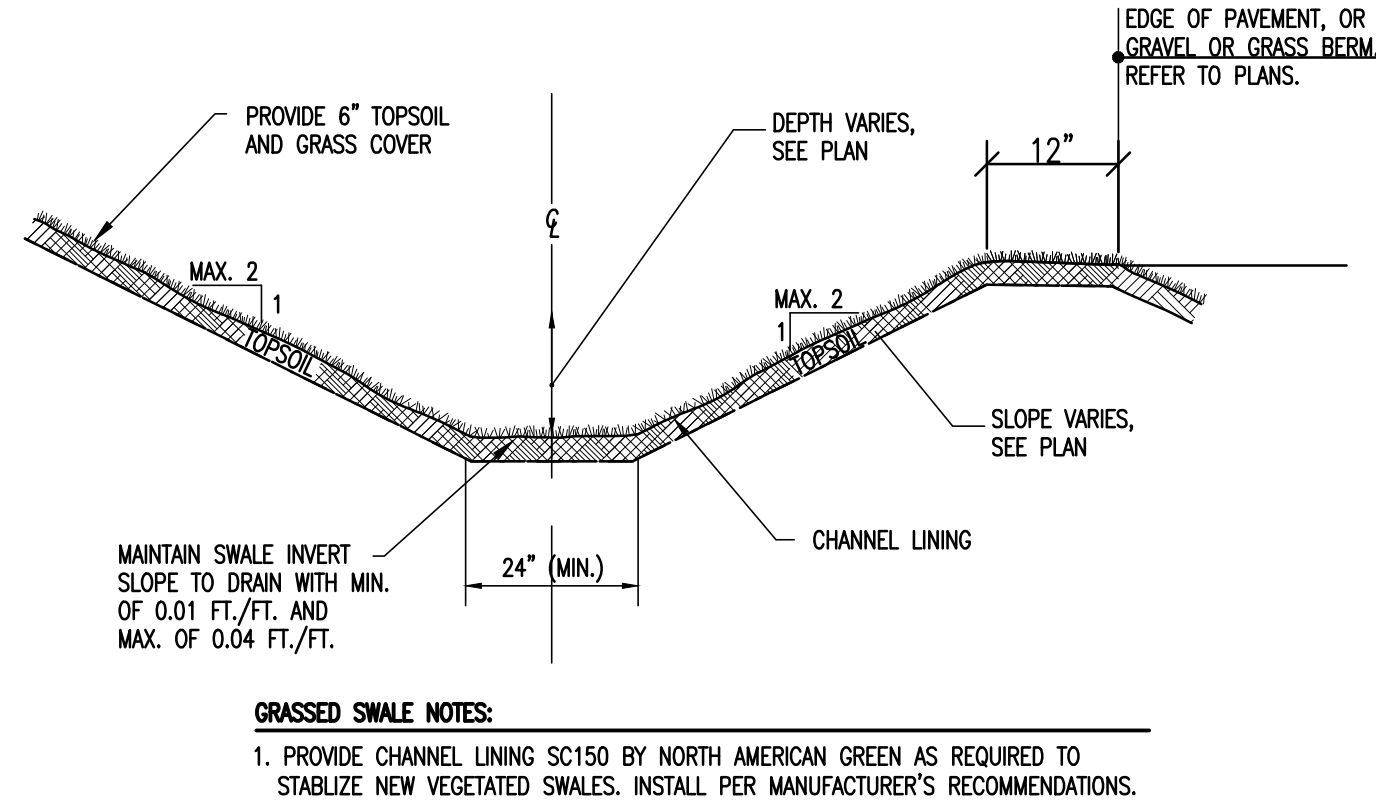
1



STORMWATER TANK OUTLET STRUCTURE DETAIL

SCALE: NONE

2



- GRASSSED SWALE NOTES:
1. PROVIDE CHANNEL LINING SC150 BY NORTH AMERICAN GREEN AS REQUIRED TO STABILIZE NEW VEGETATED SWALES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

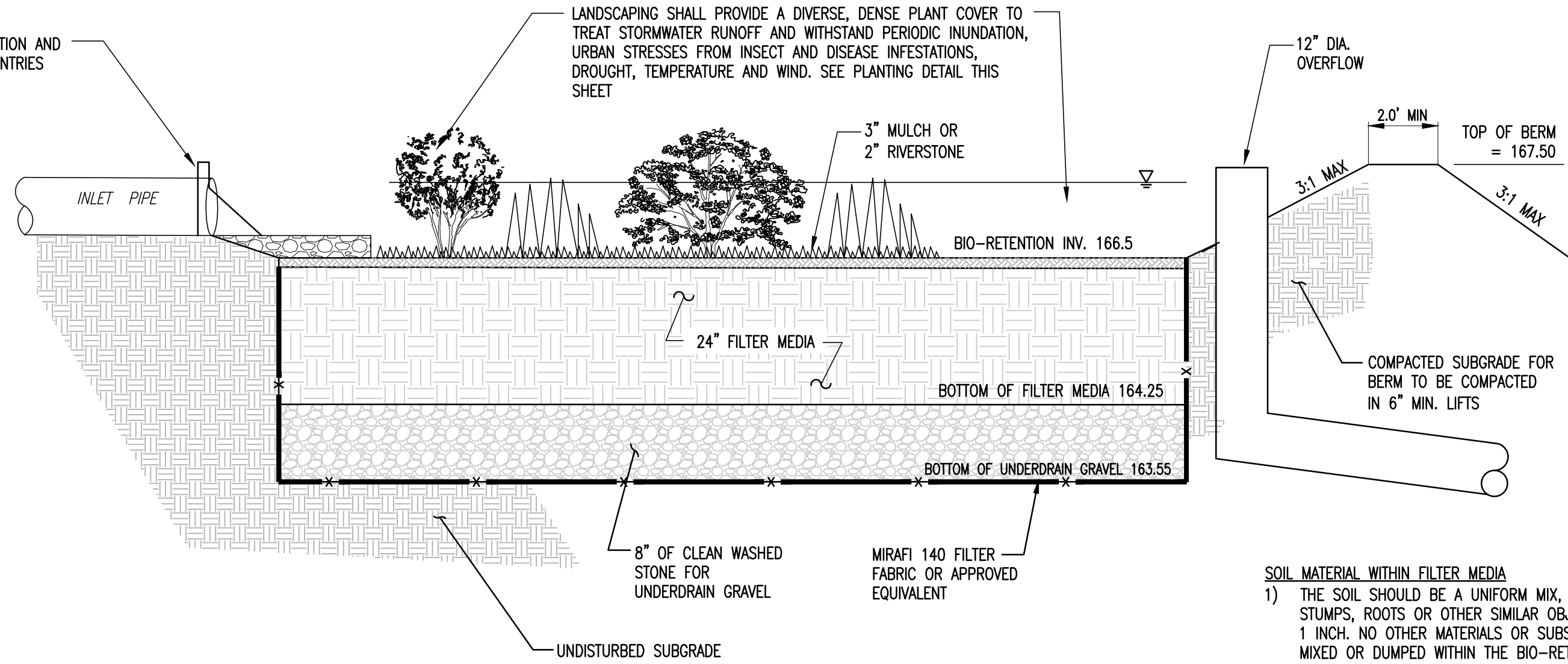
GRASSSED DRAINAGE SWALE DETAIL

SCALE: NONE

3

- RAIN GARDEN NOTES:
1. UPGRADIENT AREAS DRAINING TO BIO-RETENTION AREA SHALL BE FULLY STABILIZED PRIOR TO DIRECTING RUNOFF INTO THE PROPOSED BIO-RETENTION AREA.

INSTALL FLARED END SECTION AND RIPRAP APRON AT PIPE ENTRIES INTO RAIN GARDEN.



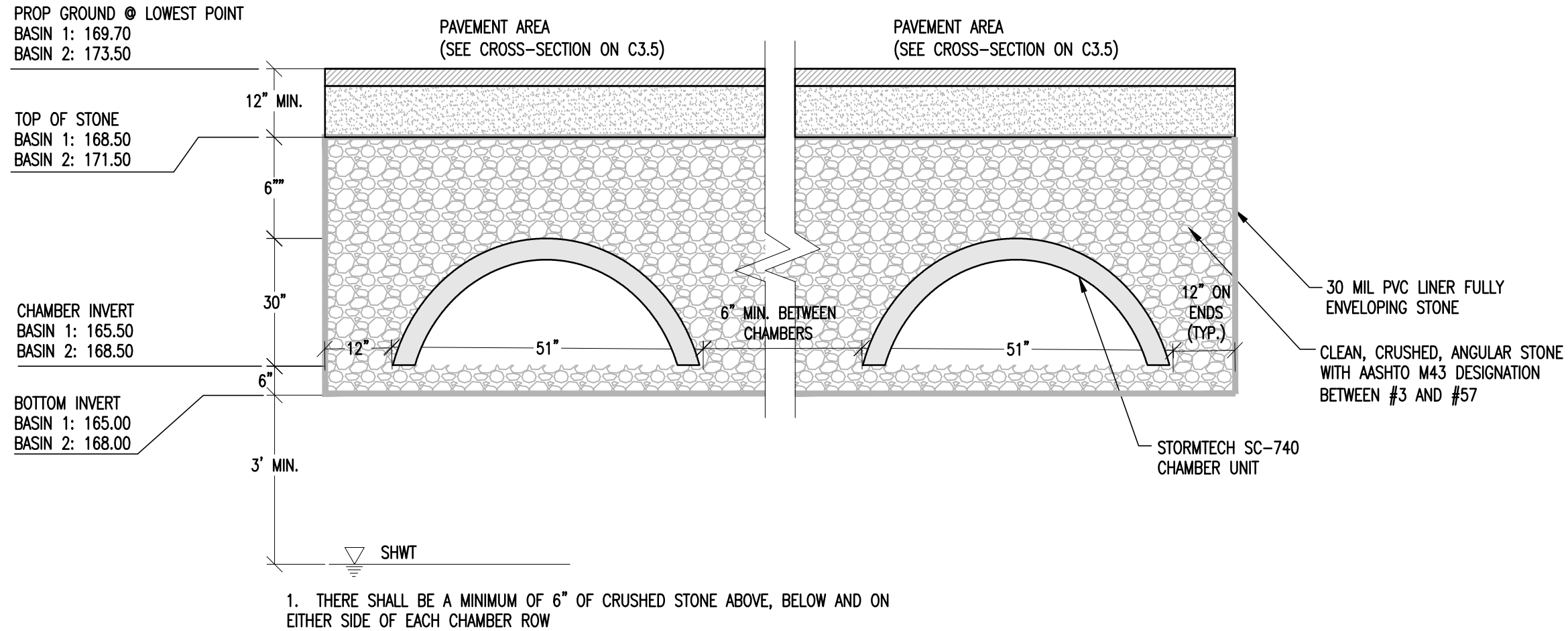
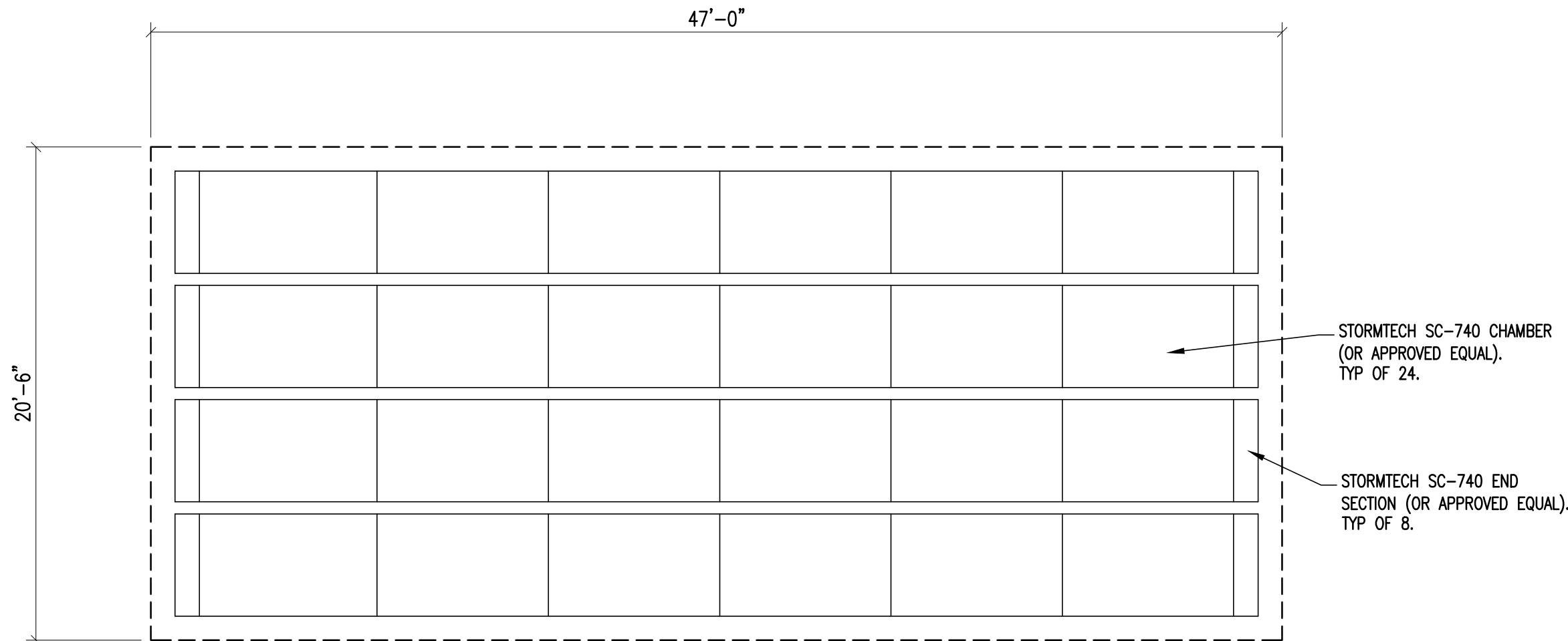
MATERIALS SPECIFICATIONS				
PARAMETER	SPECIFICATION	PERCENT OF MIXTURE BY VOLUME	SIZE GRADATION OF MATERIAL	NOTES
FILTER MEDIA	COMPONENT MATERIAL	15%	200	BARK MULCH SHALL BE MODERATELY HARDWOOD BARK OR WOOD FIBER MULCH, WITH FINES AS INDICATED AND LOW IN PHOSPHORUS CONTENT NON-MANURE BASED USDA SOIL TYPE FOR LOAMY COARSE SAND (ASTM C33 CONCRETE SAND MAY BE USED AS ALTERNATE) MULCH AGED 6 MONTHS, MINIMUM
	BARK MULCH	15%	200	
	PLANT BASED COMPOST	15%	200	
	LOAMY COARSE SAND	70%	200	
MULCH	SHREDDED HARDWOOD OR 2" RIVERSTONE		10 to 200	
UNDERDRAIN GRAVEL	AASHTO M-43		0.375" TO 0.75"	

- SOIL MATERIAL WITHIN FILTER MEDIA
- 1) THE SOIL SHOULD BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN 1 INCH. NO OTHER MATERIALS OR SUBSTANCES SHOULD BE MIXED OR DUMPED WITHIN THE BIO-RETENTION AREA THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE FILTER MEDIA SHOULD BE FREE OF NOXIOUS WEEDS.
 - 2) PLACEMENT OF THE FILTER MEDIA SHALL BE IN 12 TO 18" LIFTS, LOOSELY COMPACTED (TAMPED LIGHTLY WITH A DOZER OR BACKHOE BUCKET)
 - 3) THE FILTER MEDIA SHOULD BE TESTED AND SHOULD MEET THE FOLLOWING CRITERIA:
PH RANGE: 5.2 - 7.0
ORGANIC MATTER: 1.5 - 4%
MAGNESIUM: 35 LB./AC
PHOSPHORUS: P(20)(5) 75 LB./AC
POTASSIUM: K(20) 85 LB./AC
SOLUBLE SALTS NOT TO EXCEED 500 PPM

RAIN GARDEN DETAIL

SCALE: NONE

4



1. THERE SHALL BE A MINIMUM OF 6" OF CRUSHED STONE ABOVE, BELOW AND ON EITHER SIDE OF EACH CHAMBER ROW

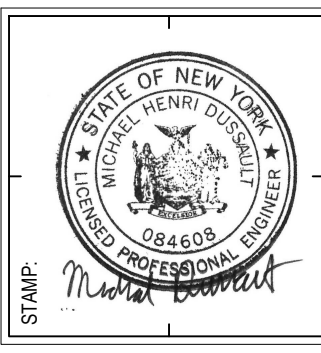
SECTION

SUBSURFACE DETENTION BASIN DETAIL

SCALE: NONE

5

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FEBRUARY 12, 2021



ENGINEERING VENTURES, P.C.		CONSULTANT:	
No.	REVISION DESCRIPTION	DATE	

STORMWATER DETAILS (2 OF 2)

New Construction

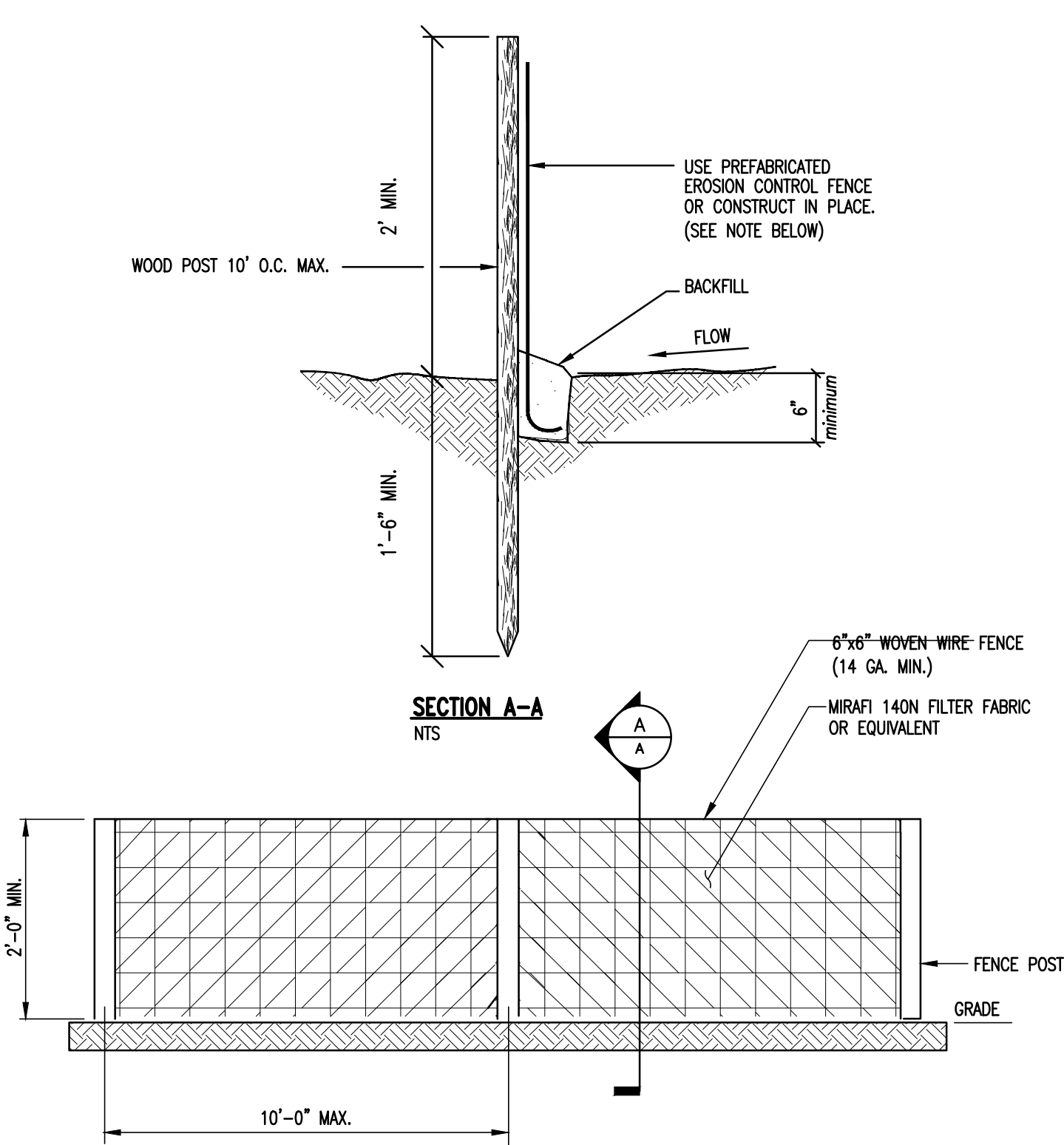
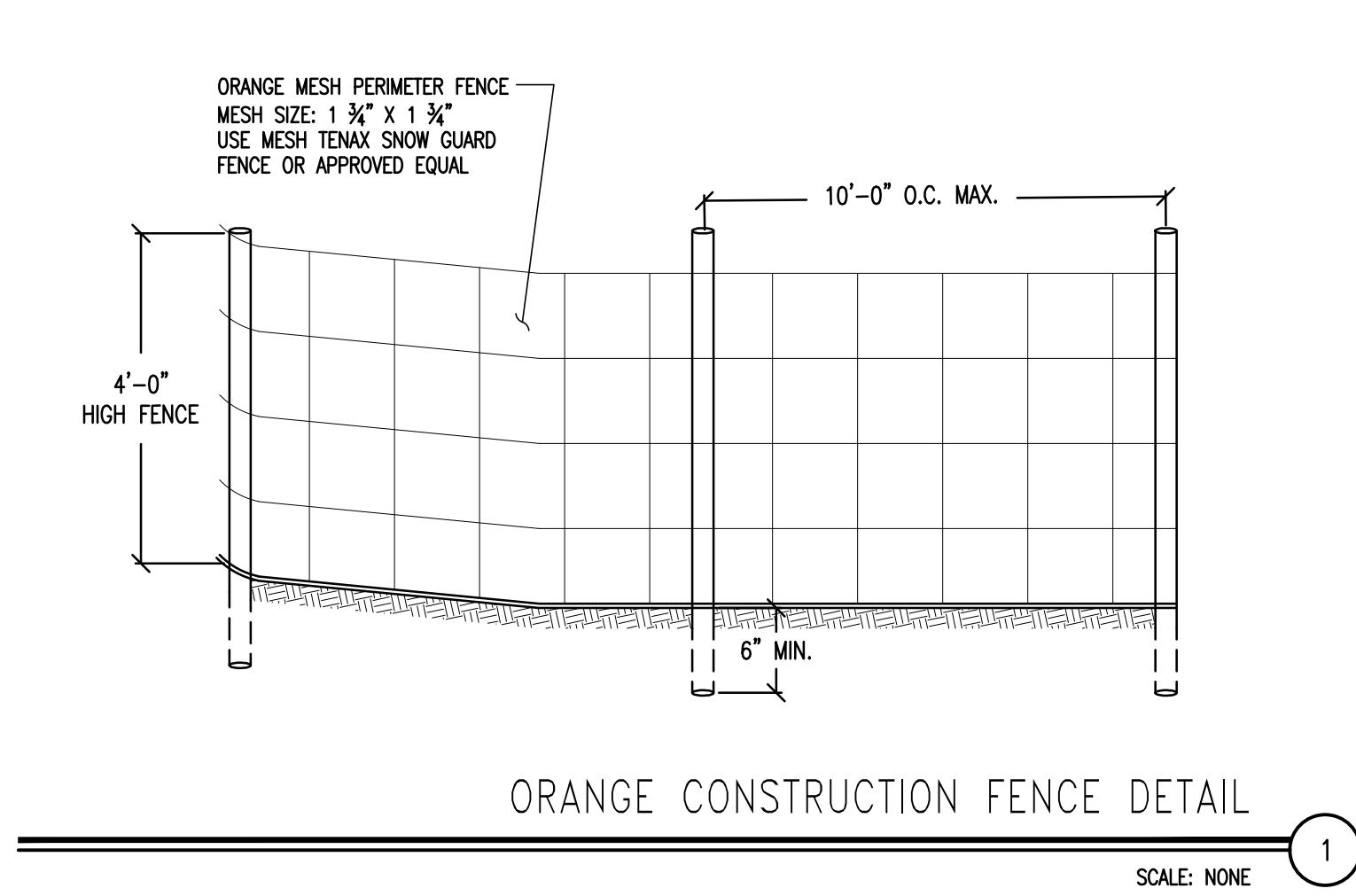
Hackett Boulevard Apartments

Albany, NY 12209

42 Besho Avenue

DRAWN BY:	MJD
DATE:	2/12/2021
SCALE:	AS NOTED
JOB No.:	EV# 20483
SHEET:	

C2.2

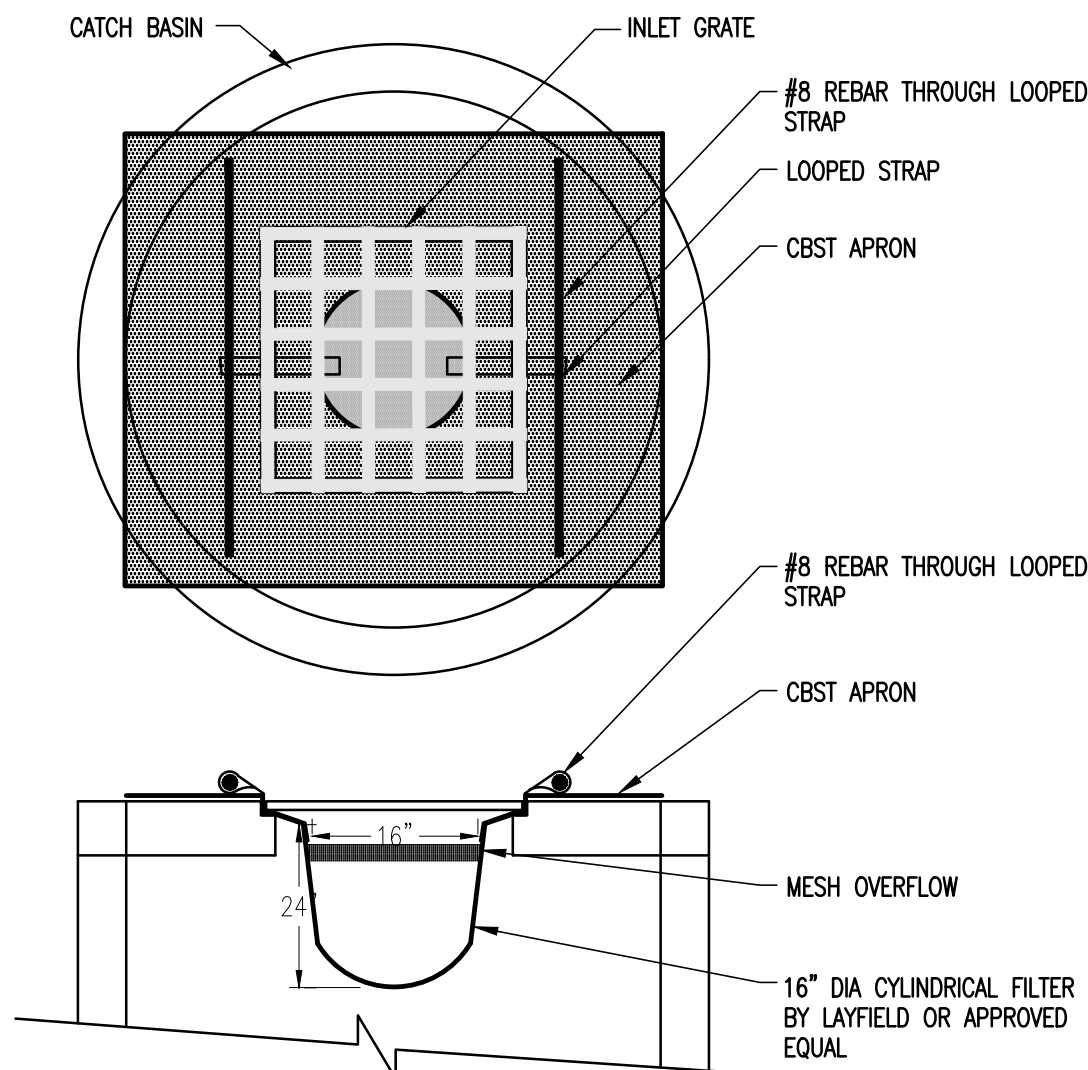


SILT FENCE NOTES:

- SILT FENCE SHALL BE PRE-FABRICATED EROSION CONTROL FENCE BY MIRAFI OR EQUAL, OR CONSTRUCTED IN PLACE AS SPECIFIED HEREIN.
- CONSTRUCTED IN PLACE SILT FENCE:
 - WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
 - FILTER FABRIC TO BE FASTENED SECURELY TO WOVEN WIRE FENCE TIES SPACED EVERY 24" AT TOP OF MID SECTION.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6", FOLDED AND STAPLED.
- INSPECTION SHALL BE FREQUENT (MINIMUM ONCE A WEEK AND AFTER EVERY RAINFALL). MAINTENANCE SHALL BE PERFORMED AS NEEDED, AND SEDIMENT REMOVED WHEN "BULGES" DEVELOP IN SILT FENCE.

SILT FENCE DETAIL

NOT TO SCALE



*TO BE UTILIZED ON EXISTING CATCH BASINS

FABRIC INLET PROTECTION

SCALE: NONE

URBAN MIX GRASS SEED-- FOR USE IN GRASSED LAWN AREAS AROUND BUILDING AND PARKING		
% BY WEIGHT	LBS. LIVE SEED BY ACRE	TYPE OF SEED
37.5	45.0	CREeping RED FESCUE
31.25	37.5	KENTUCKY BLUEGRASS
31.25	37.5	WINTER HARDY, PERENNIAL RYE
100	120.0 # LIVE SEED/ ACRE	
CONSERVATION MIX GRASS SEED-- FOR USE IN ALL OTHER AREAS		
% BY WEIGHT	LBS. LIVE SEED PER ACRE	TYPE OF SEED
35	77.0	CREeping RED FESCUE
20	44.0	KENTUCKY BLUE GRASS
15	33.0	CLUTTER PERENNIAL RYE GRASS
15	33.0	ANNUAL RYE GRASS
10	22.0	TALL FESCUE
5	11.0	WHITE CLOVER
100	220.0 # LIVE SEED/ACRE	

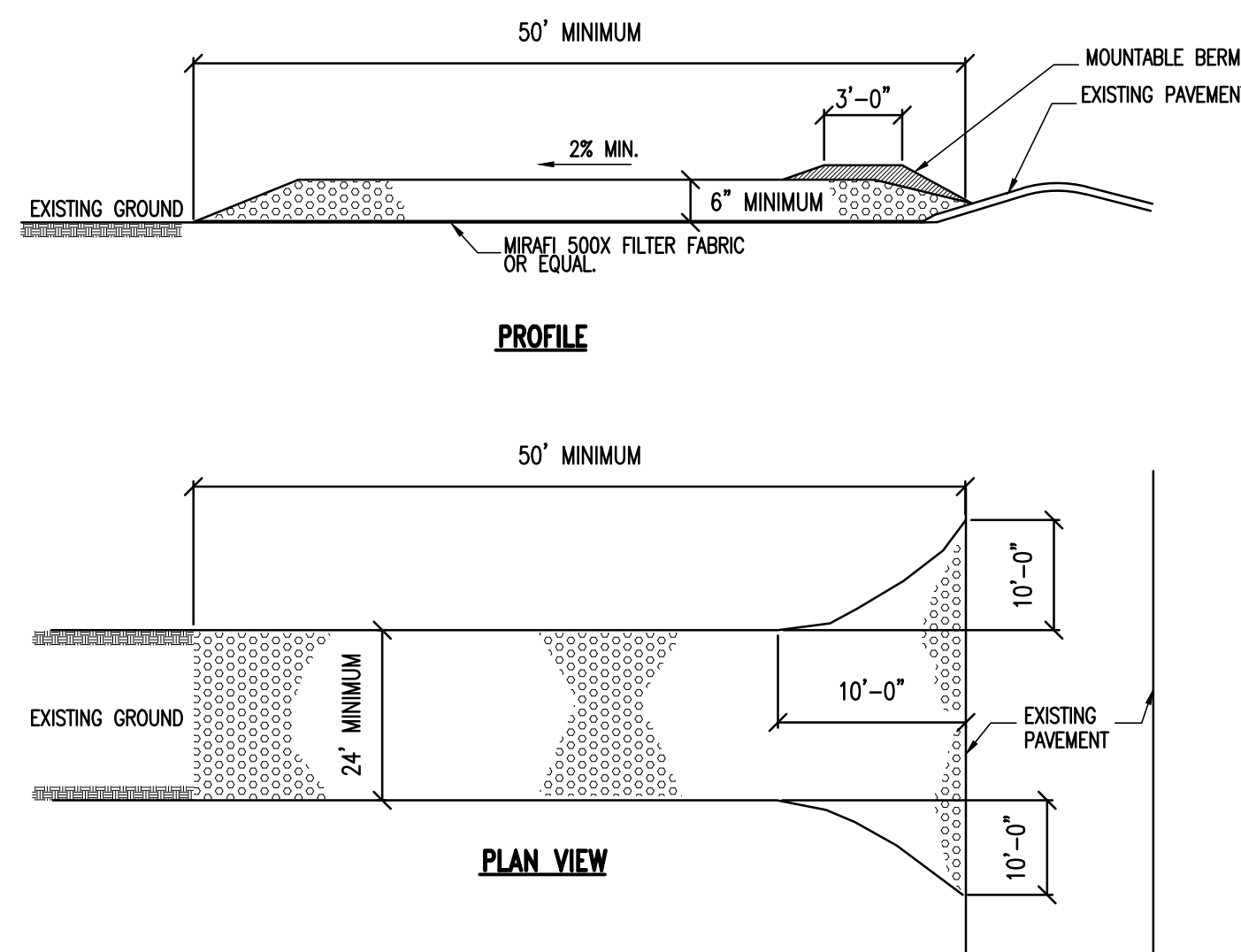
FERTILIZER-- 10 LBS. PER 1000S.F. SPRING SEEDING
FALL SEEDING

LIME-- 90 LBS. PER 1000S.F. DOLOMITIC GROUND LIMESTONE NOT LESS THAN 85% OF THE TOTAL CARBONATE

TOP SOIL
6" MINIMUM APPROVED TOPSOIL
STRAW MULCH-- 2 BALES PER 1000S.F. APPLY BINDER OR NETTING AS NEEDED

SEED SPECIFICATION

NOT TO SCALE



STABILIZED CONSTRUCTION ENTRANCE NOTES:

- STONE SIZE: USE 1-1/2" CRUSHED STONE.
- SURFACE WATER -- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED ACROSS THE ENTRANCE.
- MAINTENANCE -- THE CONSTRUCTION ACCESS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. REPAIR AND/OR CLEANOUT ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.
- WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

STABILIZED CONSTRUCTION ACCESS

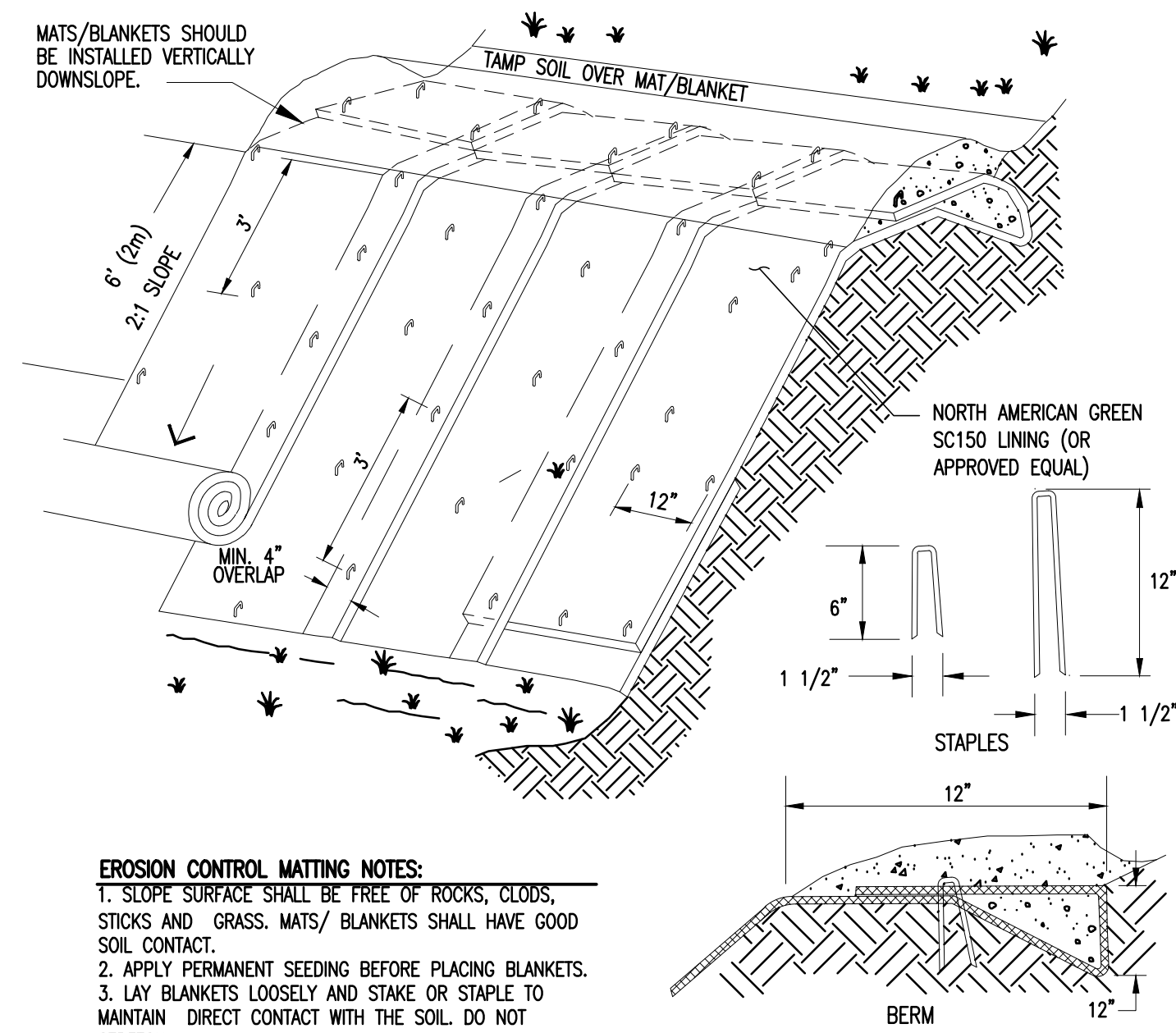
NOT TO SCALE

CONSTRUCTION SEQUENCING

****THIS SEQUENCE SHOWN IS FOR PERMITTING PURPOSES ONLY AND SHALL ONLY BE USED AS A GENERAL GUIDELINE FOR CONSTRUCTION ACTIVITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A DETAILED CONSTRUCTION SEQUENCE DETAILING THE WORK THAT WILL BE PERFORMED.**

CONTRACTOR TO ENSURE THAT NO MORE THAN 5 ACRES IS DISTURBED AT ANY ONE TIME WITHOUT AREAS BEING FULLY STABILIZED.

- OBTAIN ALL NECESSARY APPROVALS AND PERMITS FROM THE APPROPRIATE AGENCIES INCLUDING THE NYSDEC AND THE CITY OF ALBANY.
- HOLD PRE-CONSTRUCTION MEETING WITH ALL NECESSARY PARTICIPANTS AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION.
- INSTALL STABILIZED CONSTRUCTION ACCESS. MARK LIMITS OF DISTURBANCE WITH FLAGGING/TAPING OR APPROPRIATE MEASURES. INSTALL SILT FENCING DOWNSLOPE OF WORK AREAS AS SHOWN ON THE PLAN. INSTALL ORANGE CONSTRUCTION FENCING/TREE PROTECTION FENCING IN THE AREAS SHOWN.
- CLEAR AND GRUBB EXISTING TREES TO LIMITS SHOWN ON THE PLAN. REMOVE EXISTING STRUCTURES AND PAVEMENT AS SHOWN ON THE PLAN. STRIP TOPSOIL IN AREAS SHOWN TO BE DISTURBED AND PLACE IN STOCKPILE AREA.
- ROUGH GRADE AREAS AS NECESSARY.
- CONSTRUCT ALL WATER AND SEWER SERVICES.
- INSTALL ALL STORM SEWER UTILITIES. SEDIMENT SHALL BE PREVENTED FROM ENTERING PROPOSED STORMWATER TANK. PROVIDE INLET PROTECTION ON ALL PROPOSED CATCH BASINS.
- INSTALL REMAINING UNDERGROUND UTILITIES.
- BEGIN CONSTRUCTION OF BUILDING AND CONTINUE UNTIL COMPLETION.
- FINAL GRADE OTHER LAWN/PAVEMENT AREAS. INSTALL PAVEMENT BASE AND SUBBASE COURSES.
- INSTALL SIDEWALK AND LANDSCAPING IN FRONT OF BUILDING.
- ONCE ALL DISTURBED AREAS HAVE ACHIEVED FINAL STABILIZATION, THE REMAINING EROSION CONTROL FEATURES SHALL BE REMOVED. STABILIZE ANY AREAS DISTURBED DURING THE REMOVAL OF TEMPORARY EAS MEASURES. INSTALL PERMANENT SEED AND MULCH ON ANY AREAS NOT ALREADY STABILIZED.

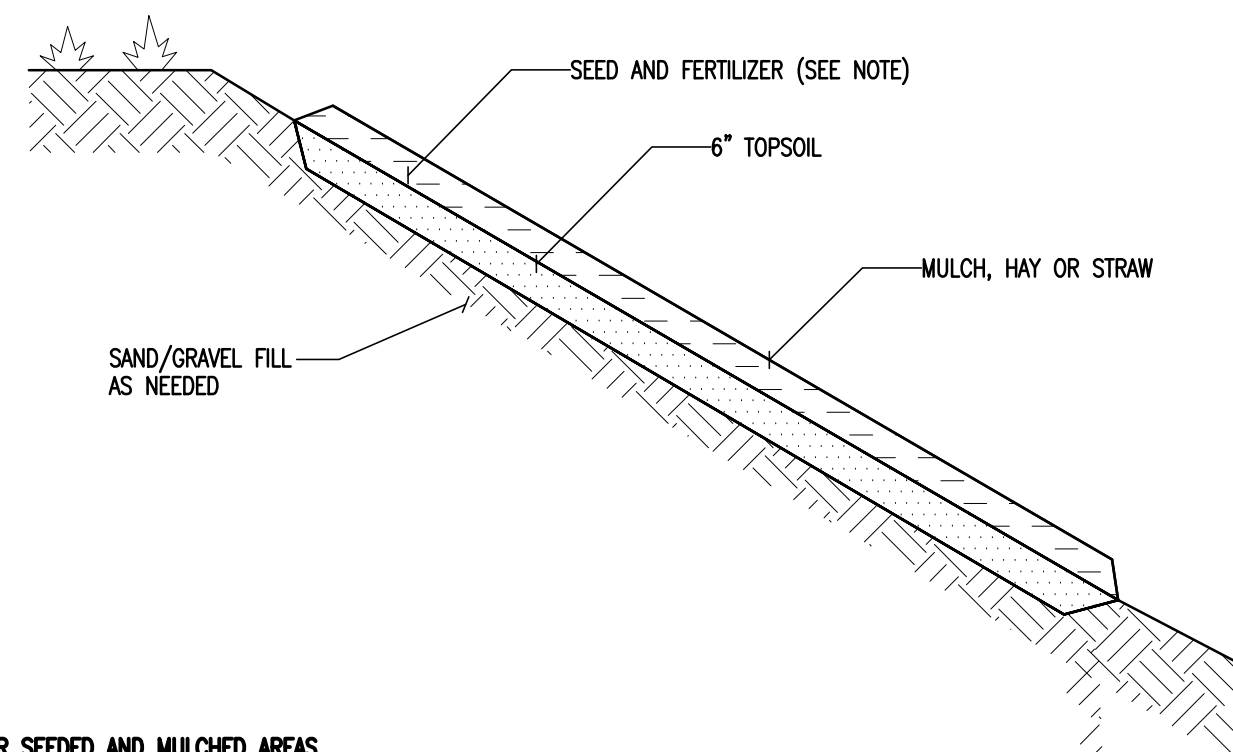


EROSION CONTROL MATTING NOTES:

- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLOUDS, STICKS AND GRASS. MATS/ BANKETS SHALL HAVE GOOD SOIL CONTACT.
- APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
- LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

EROSION CONTROL MATTING

SCALE: NONE



NOTES FOR SEEDED AND MULCHED AREAS

- MULCH: HAY OR STRAW MAY BE UTILIZED AND SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE.
- SEED: SHALL BE OF THE FOLLOWING MIXTURE:
KENTUCKY BLUE GRASS -----20 POUNDS / ACRE
CREeping RED FESCUE -----20 POUNDS / ACRE
RYE GRASS -----5 POUNDS / ACRE
- COVER SEED WITH 1/4 INCH SOIL UNLESS A HYDROSEEDER IS USED.
- MULCH ANCHORING: SHALL BE ACCOMPLISHED BY DEGRADABLE MULCH NETTING. USE WHEN SLOPES ARE GREATER THAN 10%.
- TOPSOIL AND MULCHING NOT TO BE APPLIED IN AREAS OF TRAVEL WAYS.
- SEEDING AND MULCHING OF DISTURBED AREAS SHALL TAKE PLACE WITHIN 48 HOURS OF FINAL GRADING.

SEEDED AND MULCHED AREAS DETAIL

NOT TO SCALE

EROSION CONTROL NOTES

GENERAL NOTES

- THE "ON-SITE EROSION CONTROL PLAN COORDINATOR" SHALL BE PRESENT ON-SITE FROM DAY-TO-DAY, AND SHALL BE RESPONSIBLE FOR ENSURING THAT THE EROSION CONTROL MEASURES REQUIRED BY THE EROSION CONTROL PLAN, DETAILS AND NOTES, ARE PROPERLY INSTALLED AND MAINTAINED. THE ONSITE EROSION CONTROL PLAN COORDINATOR SHALL KEEP A WRITTEN RECORD OF INSPECTIONS OF EROSION CONTROL AND EROSION CONTROL FEATURES. A COPY OF THESE PLANS AND INSPECTION/MAINTENANCE RECORDS SHALL BE KEPT ONSITE AT ALL TIMES.
- EROSION CONTROL MEASURES SHALL BE CONDUCTED IN ACCORDANCE WITH THE "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROLS", DATED NOVEMBER 2016.
- DISTURBANCE LIMITS ARE TO BE MARKED, AND THE FOLLOWING MANAGEMENT PRACTICES INSTALLED, PRIOR TO BEGINNING EARTH WORK IN ANY GIVEN AREA: SILT FENCE, CONSTRUCTION ENTRANCE AND TREE PROTECTION FENCING.
- THE PERIOD BETWEEN OCTOBER 15TH AND APRIL 15TH IS CONSIDERED THE "WINTER CONSTRUCTION PERIOD". A PLAN FOR WINTER CONSTRUCTION MUST BE DEVELOPED BY THE CONTRACTOR, AND SUBMITTED TO THE ENGINEER AT LEAST 30 DAYS IN ADVANCE OF PROPOSED EARTH DISTURBANCE DURING THIS PERIOD.
- ALL DISTURBED AREAS ARE TO BE STABILIZED (TEMPORARY OR FINAL) WITHIN 7 DAYS OF INITIAL DISTURBANCE. AFTER THIS TIME, ANY DISTURBANCE WITHIN THIS WORK AREA MUST BE STABILIZED AT THE END OF EACH WORK DAY, WITH THE FOLLOWING EXCEPTIONS:
 - STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE IN THE AREA WITHIN 24 HOURS AND NO PRECIPITATION IS FORECAST DURING THAT PERIOD.
 - WORK IS OCCURRING WITHIN A SELF-CONTAINED EXCAVATION, 2 FEET OR MORE IN DEPTH. IN NO CASE SHALL SOIL BE EXPOSED FOR MORE THAN 14 DAYS WITHOUT BEING STABILIZED.
- THE CONTRACTOR IS RESPONSIBLE FOR DAILY INSPECTION OF THE ADJACENT ROADWAYS FOR OFF-SITE TRACKING OF SOIL MATERIALS. SOIL, STONE, AND DEBRIS FLOW LEAVING THE SITE ARE TO BE REMOVED (WHEN FOUND) BY SWEEPING AT THE END OF EACH CONSTRUCTION DAY, OR MORE FREQUENTLY WHEN NEEDED TO PREVENT IMPACTS TO ADJACENT ROADS AND SIDEWALKS.
- IF DEWATERING IS REQUIRED FOR CONSTRUCTION, THE CONTRACTOR MUST UTILIZE SEDIMENT FILTER BAGS (OR ALTERNATE APPROVED BY THE ENGINEER) TO PREVENT DISCHARGE OF SEDIMENT-LADEN WATER OFF SITE.

TEMPORARY/CONSTRUCTION EROSION CONTROL MEASURES

- THE SMALLEST PRACTICAL AREA OF LAND SHALL BE DISTURBED AT ANY ONE TIME DURING DEVELOPMENT. WHEN LAND IS DISTURBED, THE DISTURBANCE SHALL BE KEPT TO THE SHORTEST PRACTICAL DURATION AS APPROVED BY THE ENGINEER.
- DUST SHALL BE CONTROLLED WITH WATER DISTRIBUTED BY A TRUCK-MOUNTED SPRAY BAR, CALCIUM CHLORIDE (ASHTO M 144) OR SODIUM CHLORIDE (ASHTO M 143) SHALL BE USED AS DIRECTED BY THE ENGINEER.
- SILT FENCES SHALL BE INSTALLED GENERALLY 10 FEET FROM THE BASE OF THE FILL SLOPES, OR AS SHOWN ON THE PLANS. THESE SHALL REMAIN IN PLACE UNTIL THE PROJECT SITE HAS BEEN STABILIZED. SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES 6 INCHES DEEP AT THE FENCE. THE SILT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A PROPER SEDIMENT BARRIER.
- EXCAVATED MATERIAL FROM EARTH EXCAVATION AND DITCH DIGGING SHALL BE PLACED ONSITE IN A LOCATION TO BE APPROVED OF BY THE OWNER AND/OR THE ENGINEER OR USED FOR PROJECT FILL MATERIAL IF DETERMINED SUITABLE BY THE OWNER'S REPRESENTATIVE.
- STOCKPILED MATERIAL (TOPSOIL, BORROW, ETC.) SHALL HAVE SILT FENCE CONSTRUCTED AROUND THE PERIMETER. THE STOCKPILED MATERIAL SHALL BE SEEDED AND MULCHED AS SOON AS POSSIBLE TO PREVENT SOIL EROSION AND SEDIMENTATION OFF SITE. LOCATE STOCKPILES ON THE UPHILL SIDE OF DISTURBED AREAS, IF POSSIBLE. DURING WINDY CONDITIONS, STOCKPILED MATERIAL SHALL BE COVERED OR WATERED APPROPRIATELY TO PREVENT WIND EROSION.
- SLOPES GREATER THAN 3:1 SHALL HAVE EROSION CONTROL NETTING INSTALLED TO STABILIZE THE SLOPE AND REDUCE THE EROSION POTENTIAL. NETTING SHALL BE BIODEGRADABLE WITH A 12 MONTH LONGEVITY, 5150BN AS MANUFACTURED OR APPROVED EQUIVALENT. INSTALL NETTING OVER MULCHED SLOPES SO THAT ALL PARTS ARE IN CONTACT WITH THE SOIL AND MULCH. PIN NETTING WITH WIRE STAPLES 3 FEET O.C. TO ENSURE FULL BONDING WITH SOIL SURFACE. THE SLOPE SURFACES SHOULD BE LEFT SLIGHTLY ROUGHENED AND NOT SMOOTH. IF LARGE AMOUNTS OF OFFSITE WATER WILL DRAIN OVER THESE SLOPES, TEMPORARY DIVERSION SWALES SHALL BE INSTALLED UP SLOPE UNTIL THE SLOPE VEGETATION STABILIZES.

PERMANENT EROSION CONTROL MEASURES

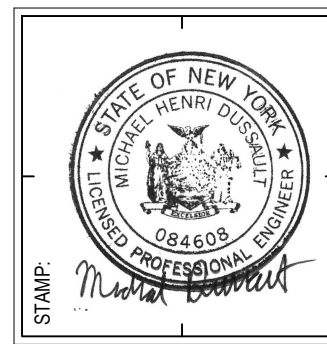
- WHEN FINAL GRADES ARE REACHED IN AN AREA, IT SHALL BE SEEDED AND MULCHED WITHIN 48 HOURS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUED MAINTENANCE OF ALL DISTURBED AREAS, INCLUDING WATERING UNTIL THE AREA IS INSPECTED AND ACCEPTED BY THE OWNER OR ENGINEER.
- AFTER THE SITE IS STABILIZED, REMOVE ALL TEMPORARY MEASURES AND INSTALL PERMANENT VEGETATION ON THE DISTURBED AREAS.
- RE-SEEDING SHALL BE DONE UNTIL ALL AREAS ARE COMPLETELY COVERED WITH A MATURE STRAND OF GRASS. AN AREA SHALL BE CONSIDERED COVERED WHEN THE ENTIRE SURFACE CONTAINS A VERDUROUS STAND OF GRASS. AREAS THAT, IN THE OPINION OF THE ENGINEER, ARE PREDOMINATELY WEEDS SHALL BE PLOWED UP, FINE GRADED, FERTILIZED AND RE-SEEDED IN THE MANNER SPECIFIED PREVIOUSLY, EXERCISING CAUTION NOT TO CAUSE DAMAGE TO NEW OR EXISTING PLANT MATERIAL.
- ALL STABILIZATION INVOLVING SEEDING IS TO BE COMPLETED BY SEPTEMBER 15TH.

WINTER EROSION CONTROL NOTES

WINTER CONSTRUCTION PROCEDURES

- DURING WINTER CONSTRUCTION, INSPECTIONS BY THE ON-SITE PLAN COORDINATOR SHALL OCCUR DAILY WHEN AREAS ARE UN-STABLE, AND WEEKLY PRIOR TO ANY FORECASTED RAIN, THAW OR SPRING MELT WHEN TEMPORARY STABILIZATION IS IN PLACE.
- IN AREAS TO BE STABILIZED BY VEGETATION, ALL SEEDING MUST BE COMPLETED BY SEPTEMBER 15 TO ALLOW GROWTH TO OCCUR PRIOR TO THE GROUND FREEZING. STABILIZATION OF ALL OTHER DISTURBED AREAS SHALL BE COMPLETED BY OCTOBER 15.
- ENLARGED ACCESS POINTS, STABILIZED TO PROVIDE FOR SNOW STOCKPILING SHALL BE INSTALLED.
- LIMITS OF DISTURBANCE SHALL BE MOVED OR REPLACED TO REFLECT BOUNDARY OF WINTER WORK.
- SNOW WILL NOT BE PILED WITHIN 25 FEET OF PERIMETER CONTROLS (SUCH AS SILT FENCE) TO ALLOW FOR CLEARING AND MAINTENANCE. SNOW IS TO BE REMOVED FROM ALL STRUCTURAL EROSION PREVENTION AND SEDIMENTATION CONTROL MEASURES FOLLOWING EACH SIGNIFICANT SNOWFALL. NO SNOW STORAGE UP-GRADE OF DISTURBANCE. NO SNOW DISPOSAL IN SEDIMENT PONDS/BASINS. IF NECESSARY, SNOW/ICE MUST BE REMOVED PRIOR TO STABILIZATION OF DISTURBED AREAS. ACCESS POINTS SHALL BE ENLARGED AND STABILIZED TO ALLOW FOR SNOW STOCKPILING.
- IN AREAS OF DISTURBANCE WITHIN 100 FT OF A RECEIVING WATER, SILT FENCE SHALL BE REINFORCED OR ELSE REPLACED WITH PERIMETER DIKES, SWALES OR OTHER PRACTICES RESISTANT TO THE FORCES OF SNOW LOADS.
- DRAINAGE STRUCTURES SHALL BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS.
- ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE TO BE IN PLACE BY OCTOBER 15, OR IF NOT POSSIBLE, THEN PRIOR TO GROUND FREEZE.
- MULCH IS TO BE APPLIED AT THE END OF EACH WORKDAY TO ALL EXPOSED AREAS THAT HAVE NOT YET REACHED FINAL GRADE AT TWICE THE RATE INDICATED IN THE SEEDING AND MULCHING DETAIL FOR THE REGULAR CONSTRUCTION SEASON. MULCH SHALL BE TRACKED IN OR STABILIZED WITH NETTING.
- TO ENSURE COVER OF DISTURBED SOIL IN ADVANCE OF A MELT EVENT, AREAS OF DISTURBED SOIL MUST BE STABILIZED AT THE END OF EACH WORK DAY, WITH THE FOLLOWING EXCEPTIONS:
 - IF NO PRECIPITATION WITHIN 24 HOURS IS FORECAST AND WORK WILL RESUME IN THE SAME DISTURBED AREA WITHIN 24 HOURS, DAILY STABILIZATION IS NOT NECESSARY.
 - DISTURBED AREAS THAT COLLECT AND RETAIN RUNOFF, SUCH AS HOUSE FOUNDATIONS OR OPEN UTILITY TRENCHES.
- SNOW AND ICE SHALL BE REMOVED TO LESS THAN 1" THICKNESS PRIOR TO STABILIZATION.
- STONE STABILIZATION, 10 TO 20 FT WIDE IN AREAS SUCH AS THE PERIMETER OF BUILDINGS UNDER CONSTRUCTION WHERE CONSTRUCTION VEHICLE TRAFFIC IS ANTICIPATED SHALL BE INSTALLED.
- SOIL STOCKPILES MUST BE PROTECTED BY THE USE OF ESTABLISHED VEGETATION, ANCHORED STRAW MULCH, ROLLED STABILIZATION MATTING, OR OTHER DURABLE COVERING. A BARRIER MUST BE INSTALLED AT LEAST 15 FEET FROM THE TOE OF THE STOCKPILE TO PREVENT SOIL MIGRATION AND TO CAPTURE LOOSE SOIL.

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FEBRUARY 12, 2021



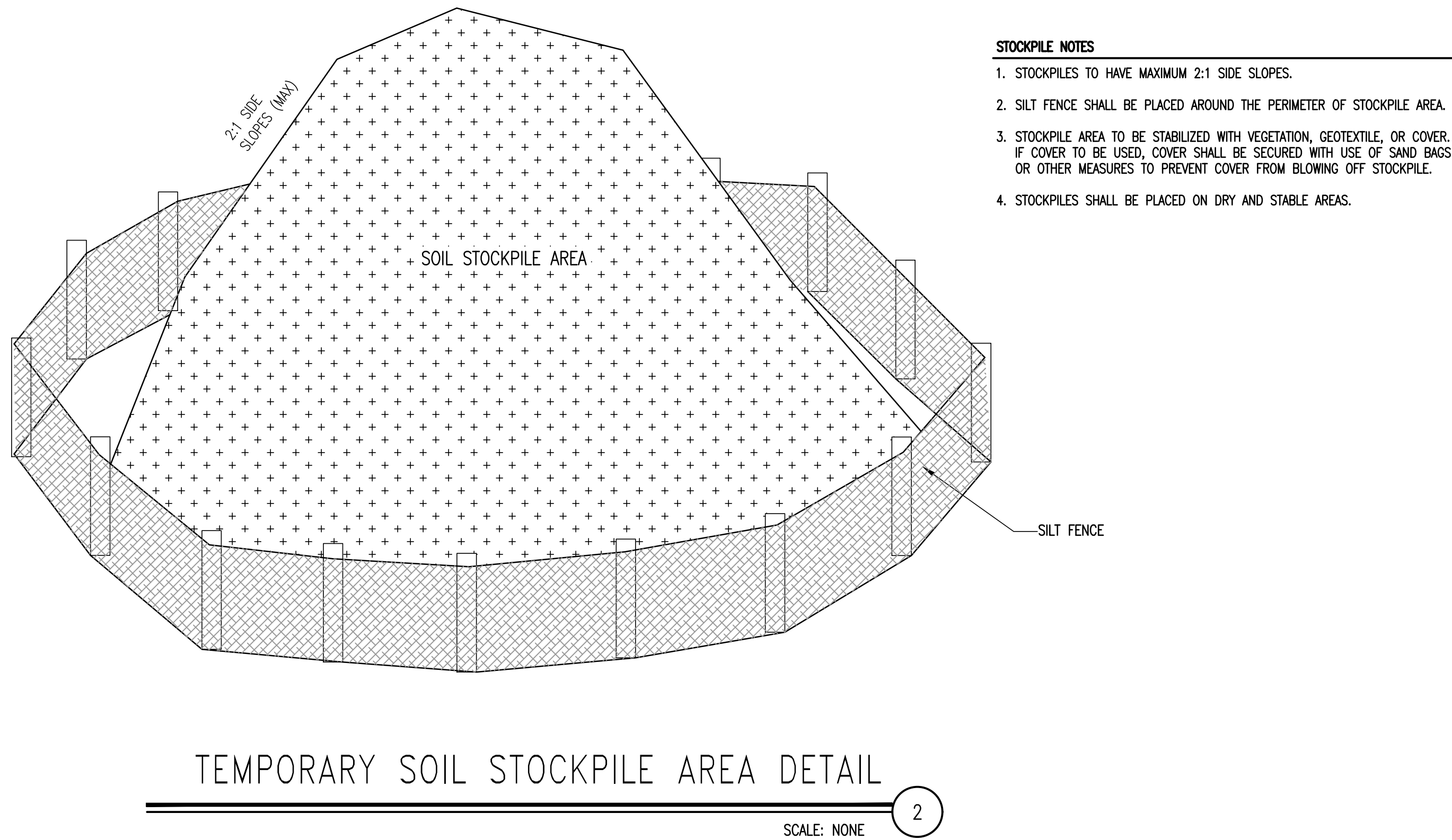
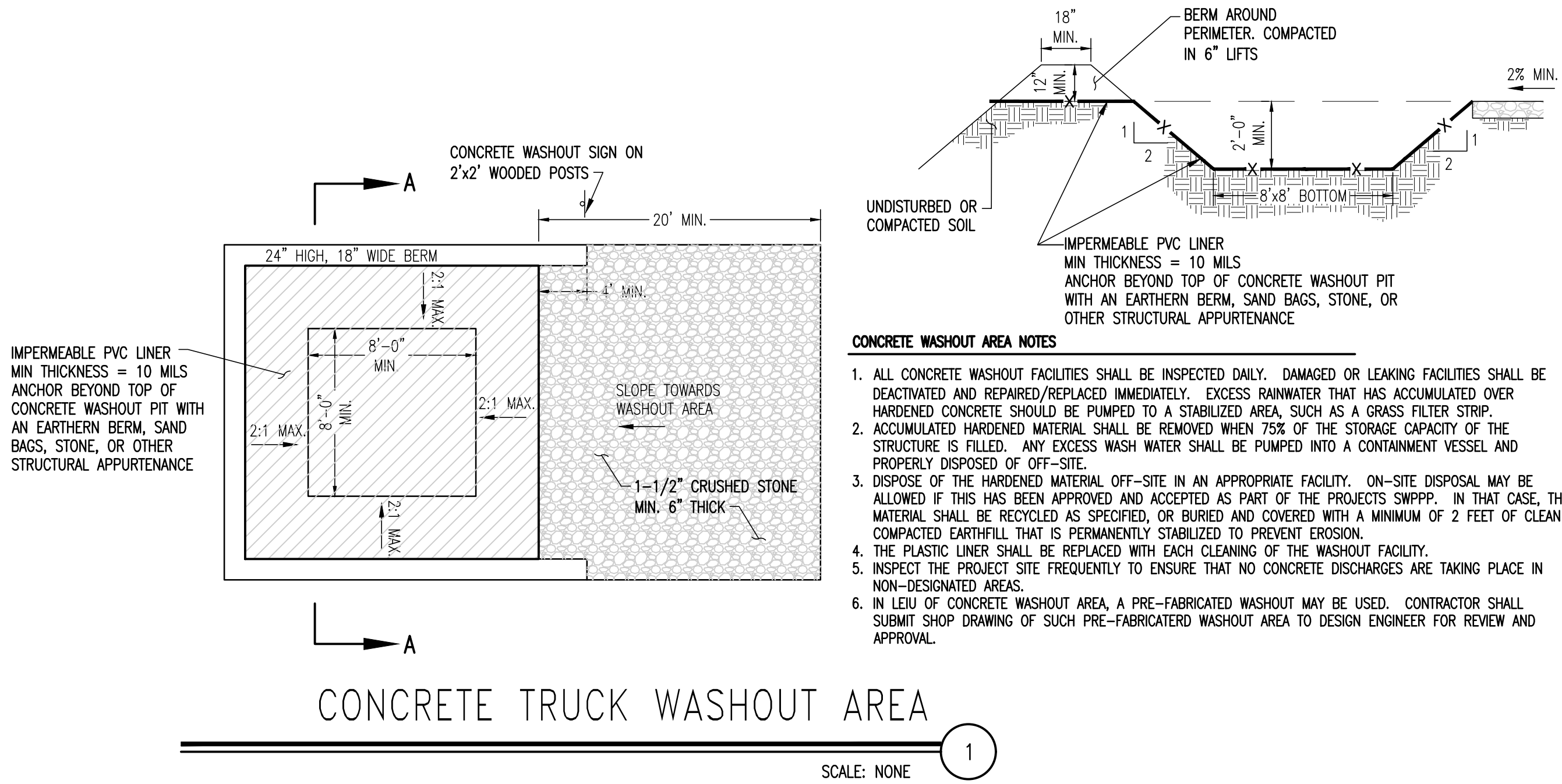
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No.			

SHEET: EROSION & SEDIMENT CONTROL DETAILS (1 OF 2)

New Construction
Hackett Boulevard Apartments
Albany, NY 12209
42 Besho Avenue

DRAWN BY:	MJD
DATE:	2/12/2021
SCALE:	AS NOTED
JOB No.:	EV# 20483
SHEET:	C3.3

PLOT DATE: 2/12/2021 9:00 AM



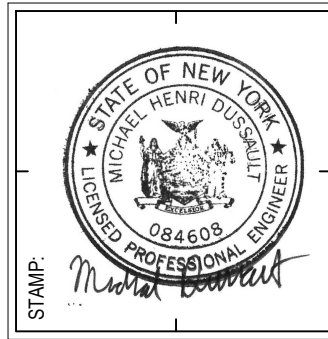
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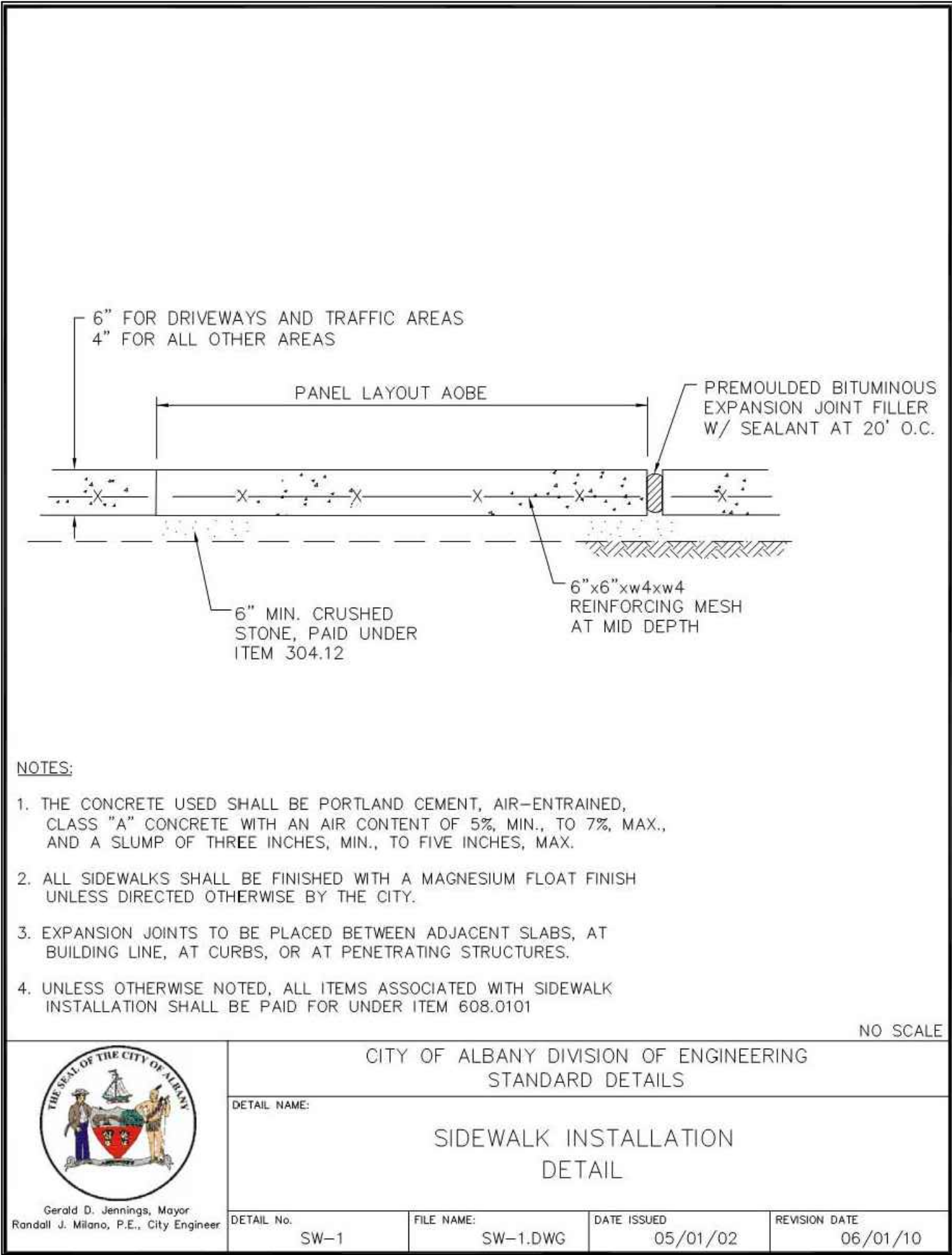
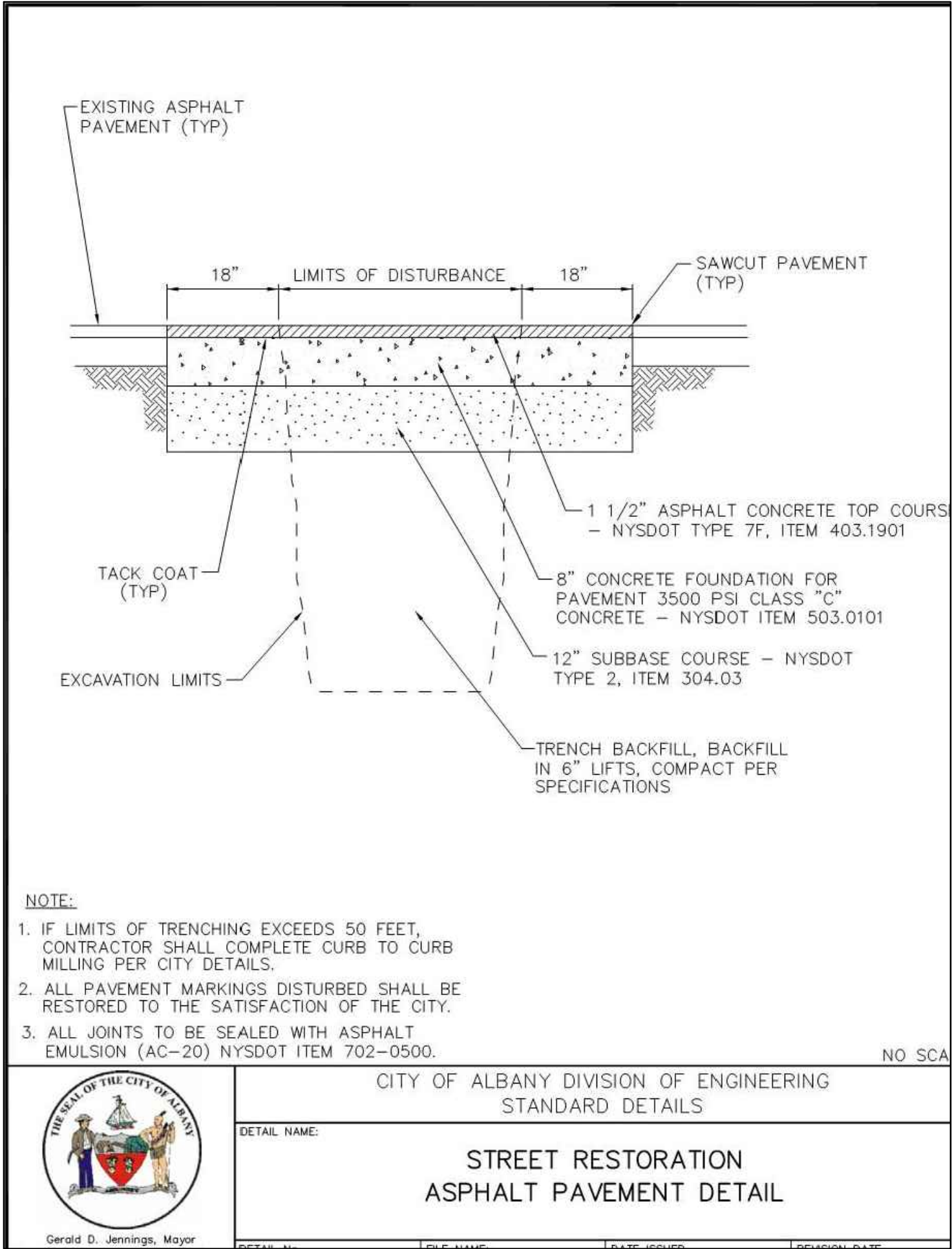
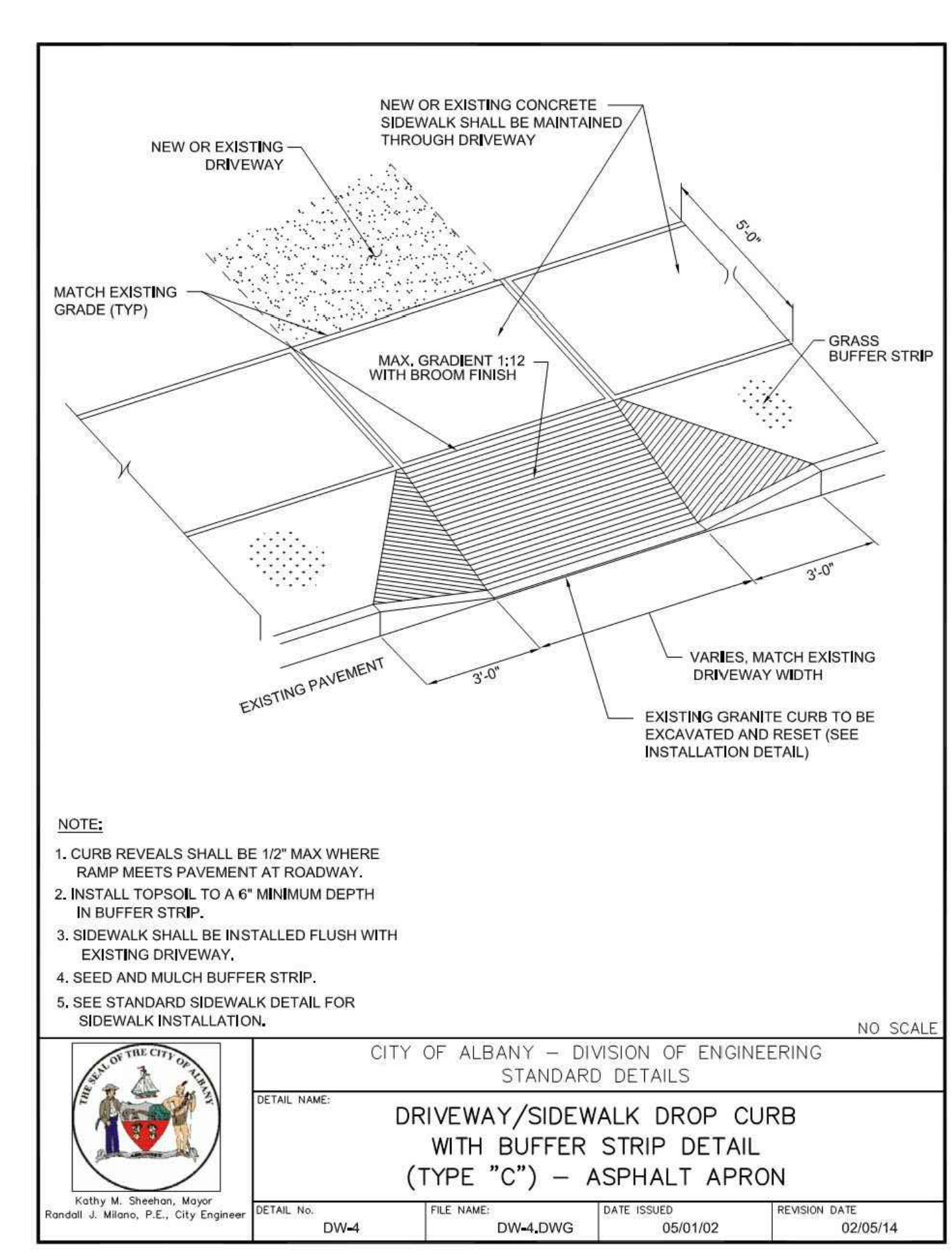
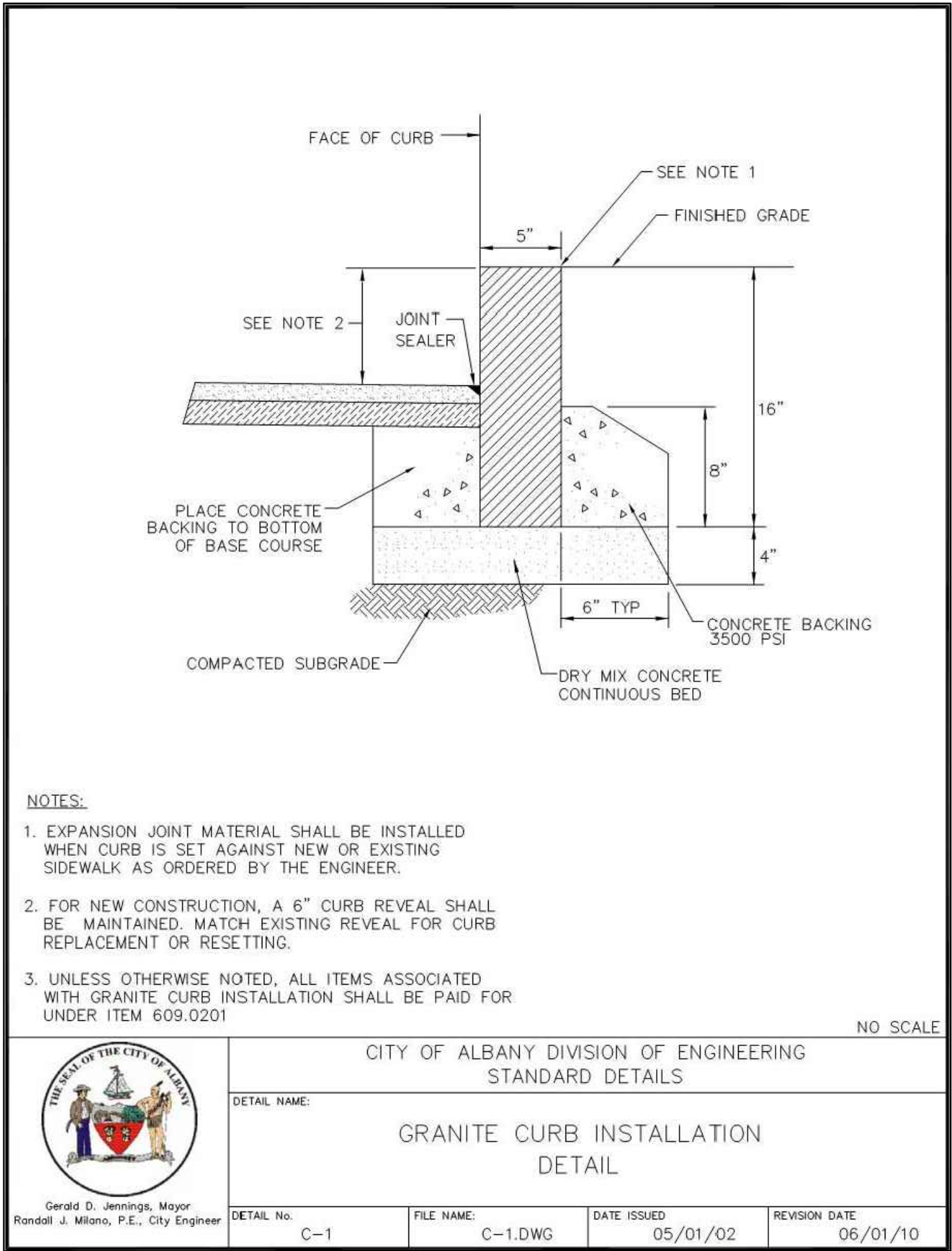
DRAWN BY:	MJD
DATE:	2/12/2021
SCALE:	AS NOTED
JOB No.:	EV# 20483
SHEET:	C3.4

SHEET TITLE	EROSION & SEDIMENT CONTROL DETAILS (2 OF 2)
PROJECT:	New Construction Hackett Boulevard Apartments Albany, NY 12209 42 Bessie Avenue

No.	REVISION DESCRIPTION	DATE	CONSULTANT

ENGINEERING VENTURES, PC
2000 New Amsterdam Road, Albany, NY 12208
914-439-1234 FAX 914-439-1235
www.engineeringventures.com





C2 ARCHITECTURE, PC
WWW.C2-DESIGNGROUP.COM
24 AIRPORT ROAD | SCHENECTADY, NY 12302 | 518.320.8250

STATE OF NEW YORK
SEAL OF THE CITY OF ALBANY
PROFESSIONAL ENGINEER
No. 12345
Name: Michael J. Milano

ENGINEERING VENTURES, PC
2000 New Amsterdam Road, Albany, NY 12209
914-439-1234
www.engineeringventures.com

REVISION DESCRIPTION DATE CONSULTANT
No. 1 2 3 4 5 6 7 8 9 10 11 12

SHEET TITLE: CITY OF ALBANY STANDARD SITE DETAILS
PROJECT: New Construction
Hackett Boulevard Apartments
42 Bessie Avenue
Albany, NY 12209

DRAWN BY: MJD
DATE: 2/12/2021
SCALE: AS NOTED
JOB No.: EV# 20483
SHEET: C3.5

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