



6100 SOUTH PARK AVENUE
HAMBURG NY, 14175

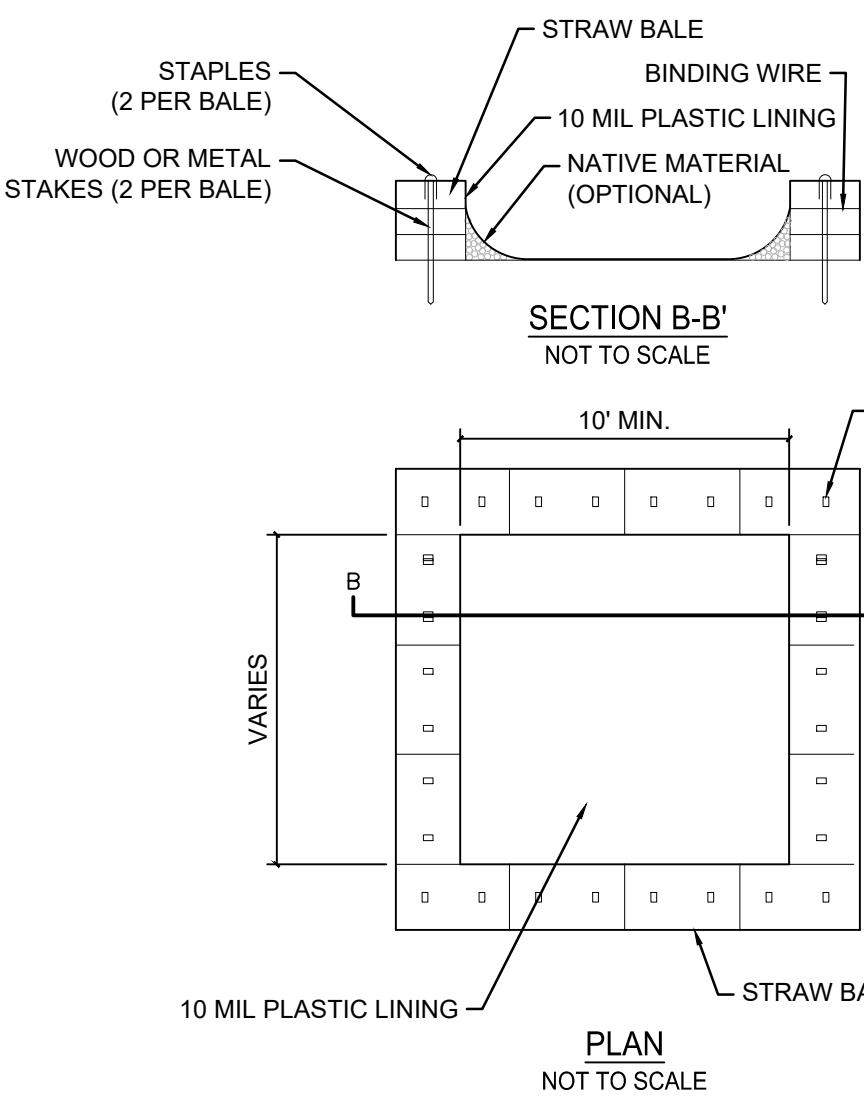
HAMBURG TOWN HALL
PARKING LOT
PROJECT #2025-06

CONSTRUCTION DOCUMENTS



Wendel
Centerpointe Corporate Park
375 Essjay Road, Suite 200
Williamsville, NY 14221
www.wendelcompanies.com
p:716.888.0766 f:716.625.5825

Wendel WD Architecture, Engineering, Surveying and
Landscape Architecture, P.C.



NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 33' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

1 CONCRETE WASHOUT DETAIL

NTS

SECTION

2 SILT FENCE DETAIL

NTS

SECTION

SECTION</p



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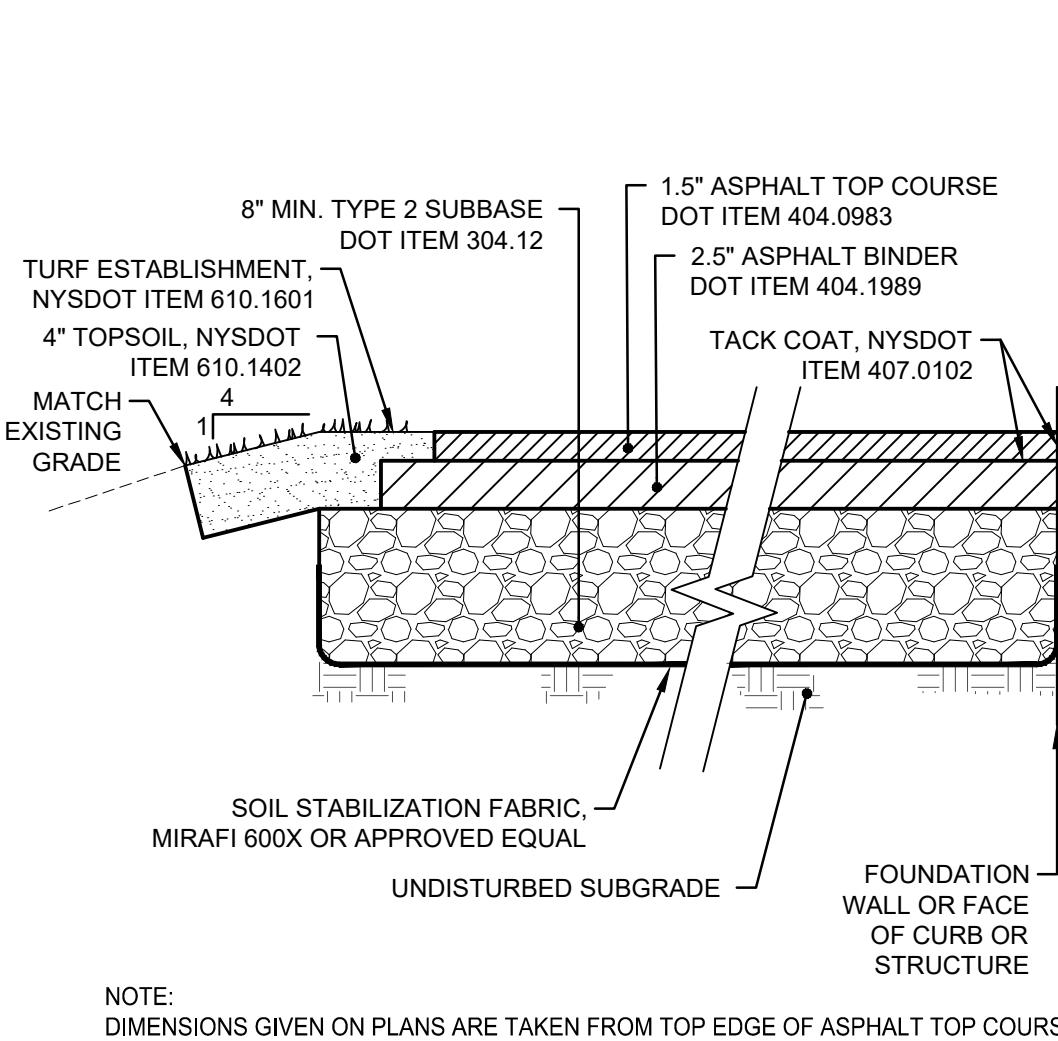


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NO.	REVISIONS	DATE
DWG. TITLE		

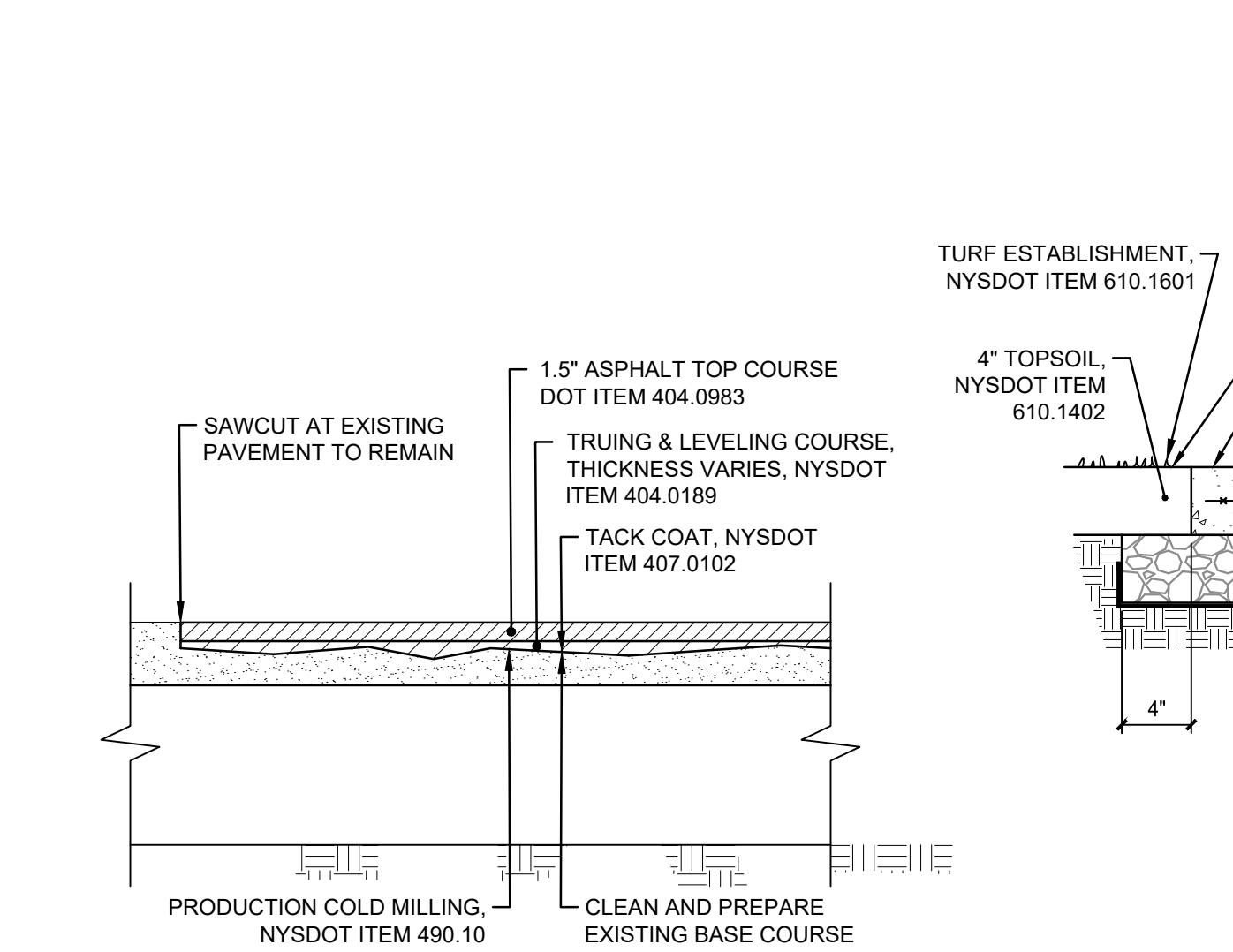
SITE DETAILS

0	2"
GENERIC SCALE BAR	
SCALE BAR SHOWN IS TWO INCHES ON THE ORIGINAL DRAWING. IF NOT TWO INCHES ON THIS SHEET, ADJUST ACCORDINGLY	
DATE	10/22/2025
SCALE	AS NOTED
DWG.	WGA
CHK.	SAR
PROJ. NO.	300825PKLOT
DWG. NO.	



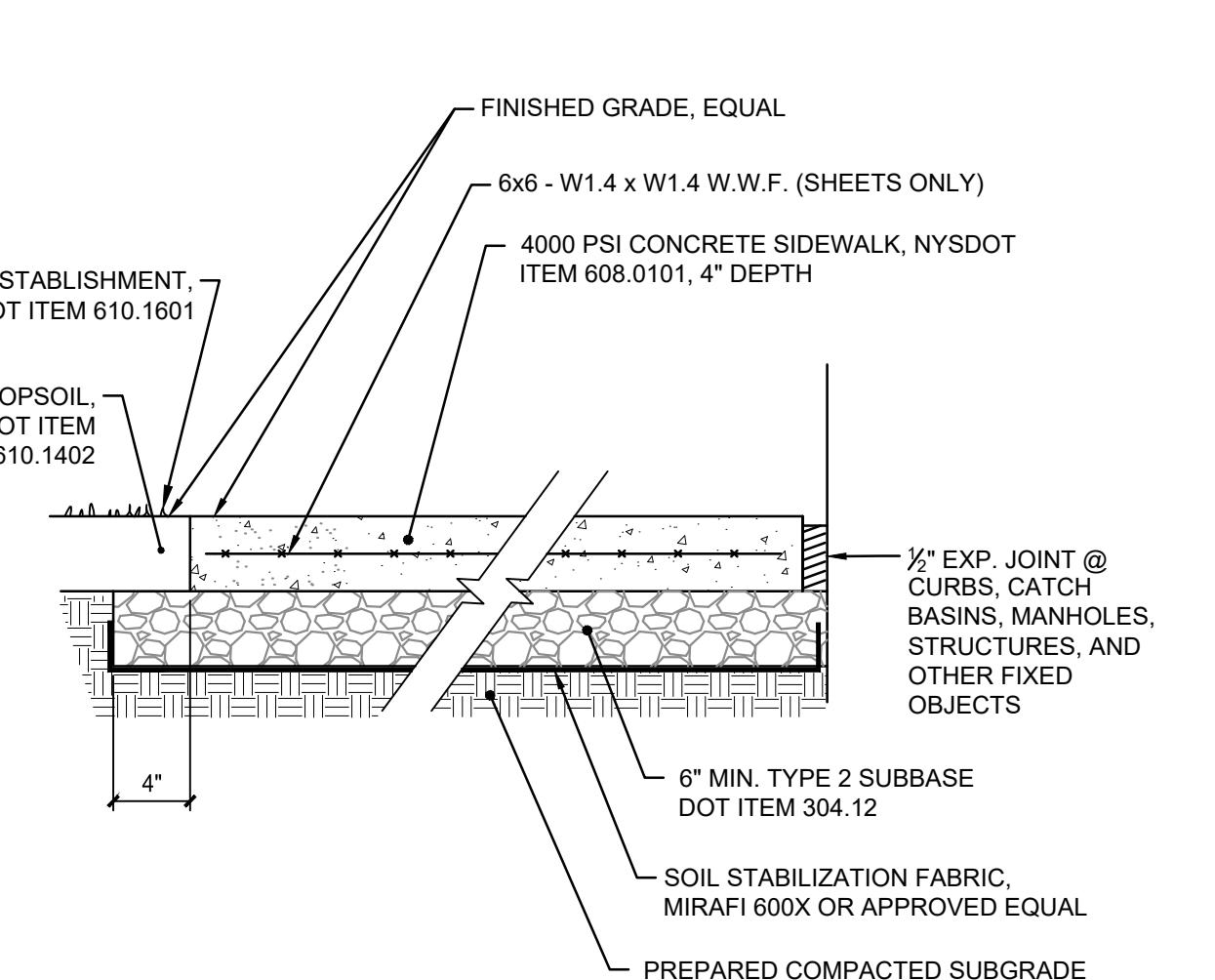
1 ASPHALT PAVEMENT SECTION

SCALE: N.T.S.



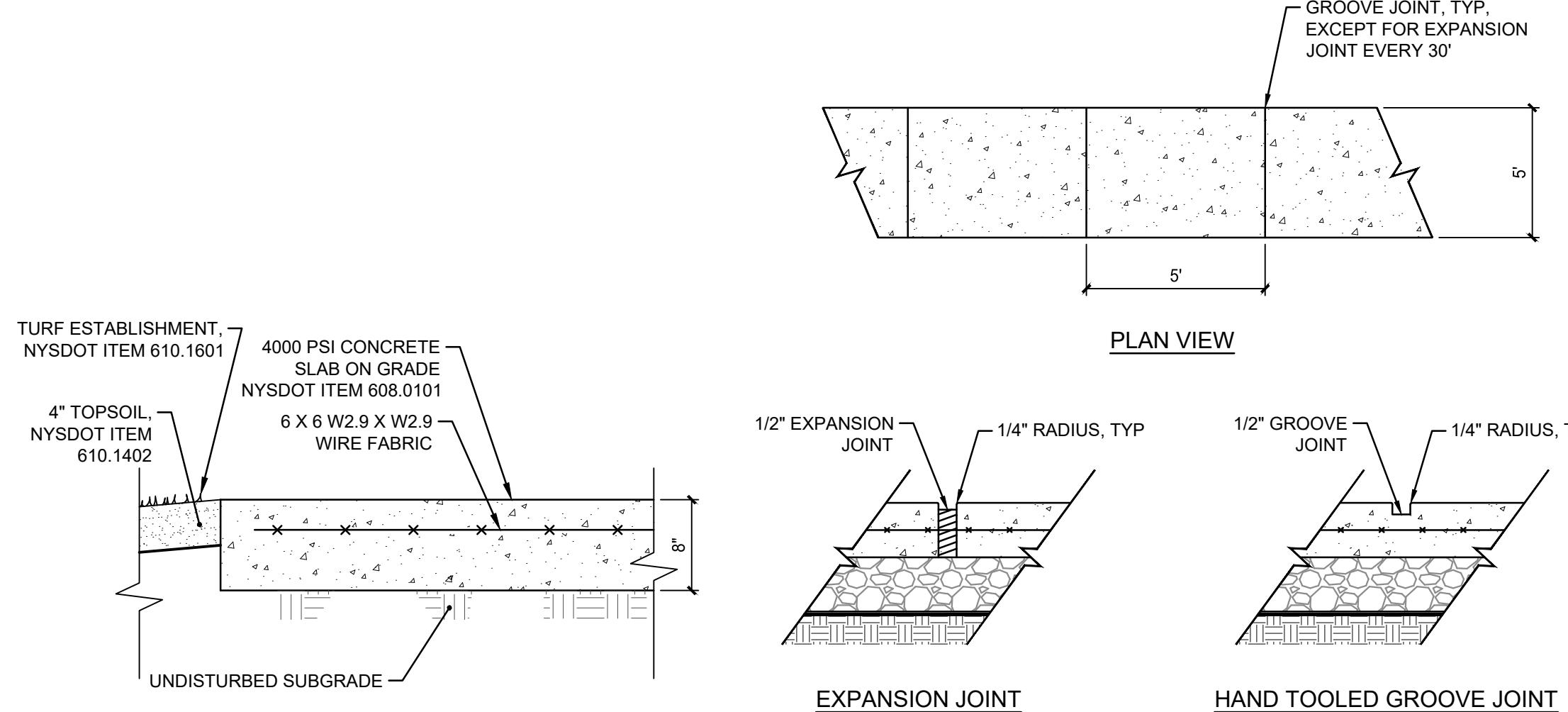
2 MILLING & OVERLAY DETAIL

N.T.S.



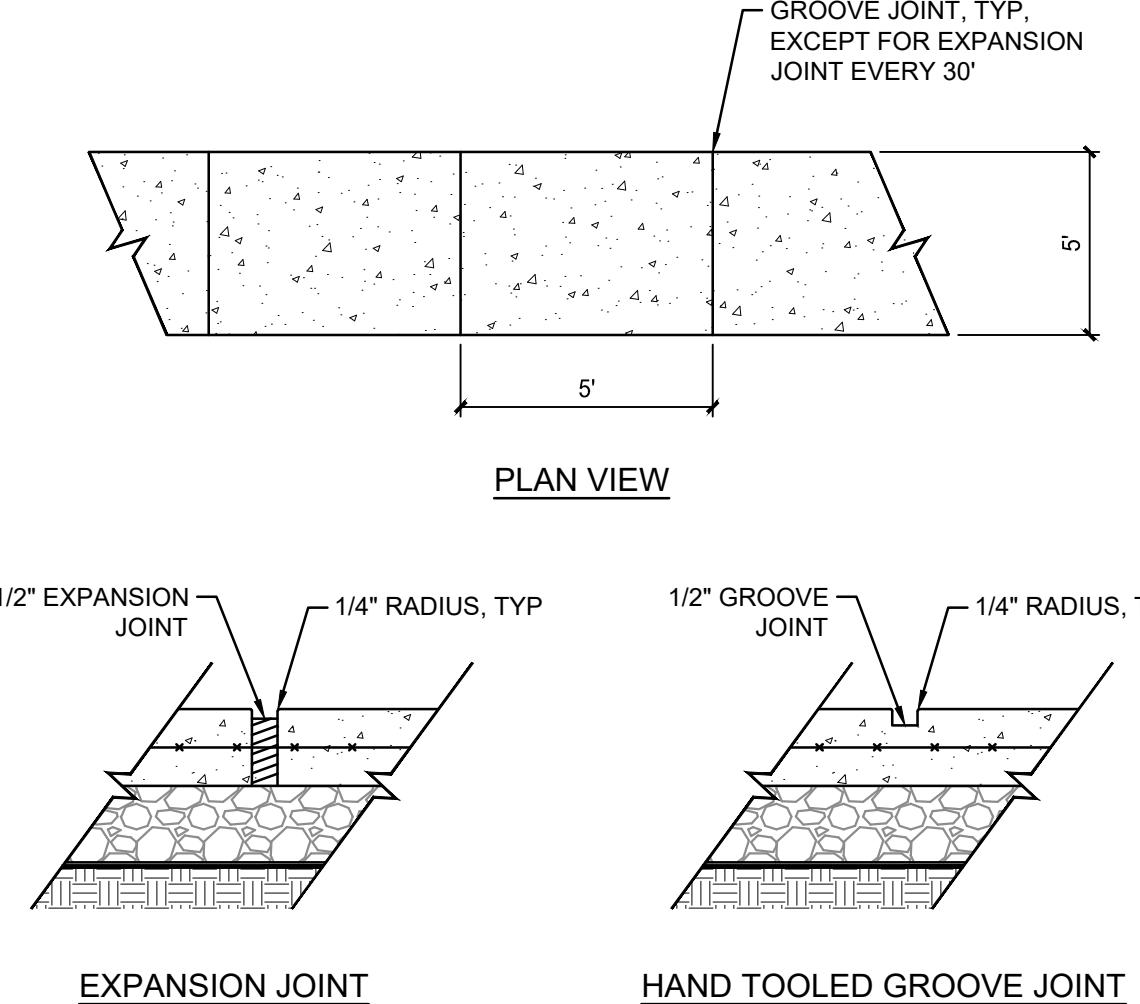
3 CONCRETE SIDEWALK SECTION

N.T.S.



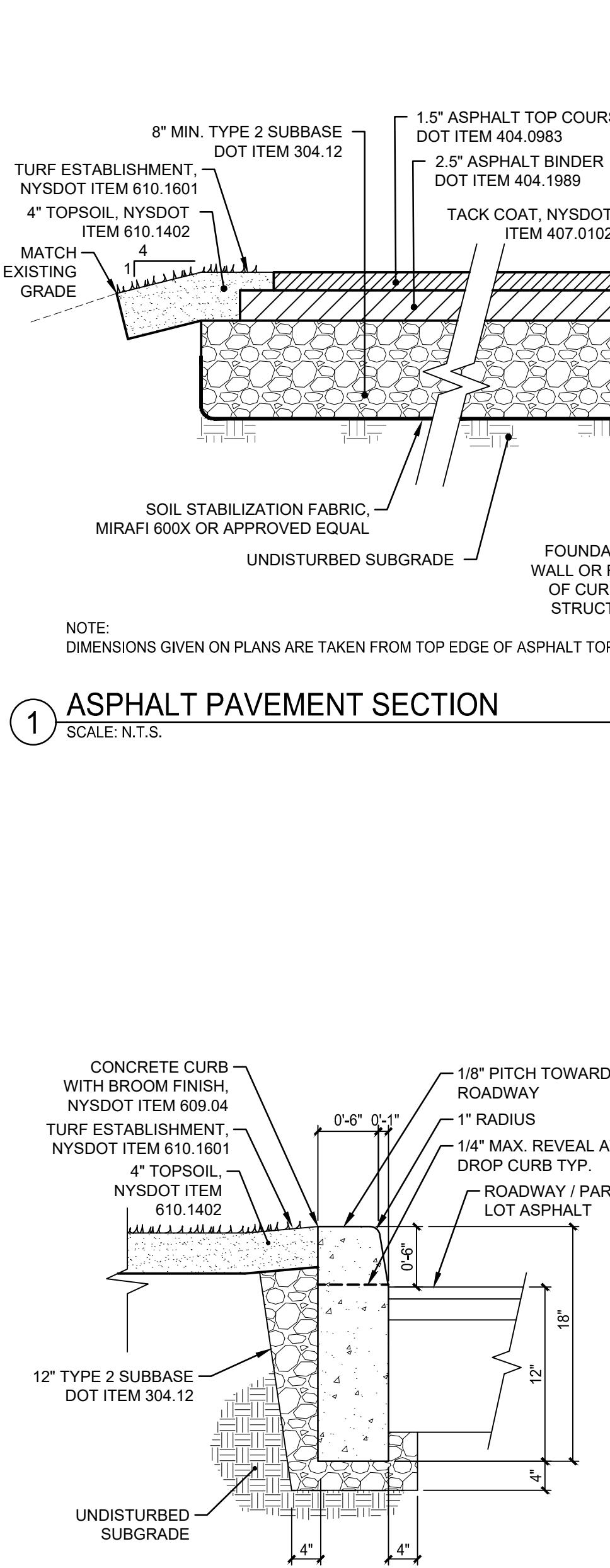
4 CONCRETE PAD DETAIL

N.T.S.



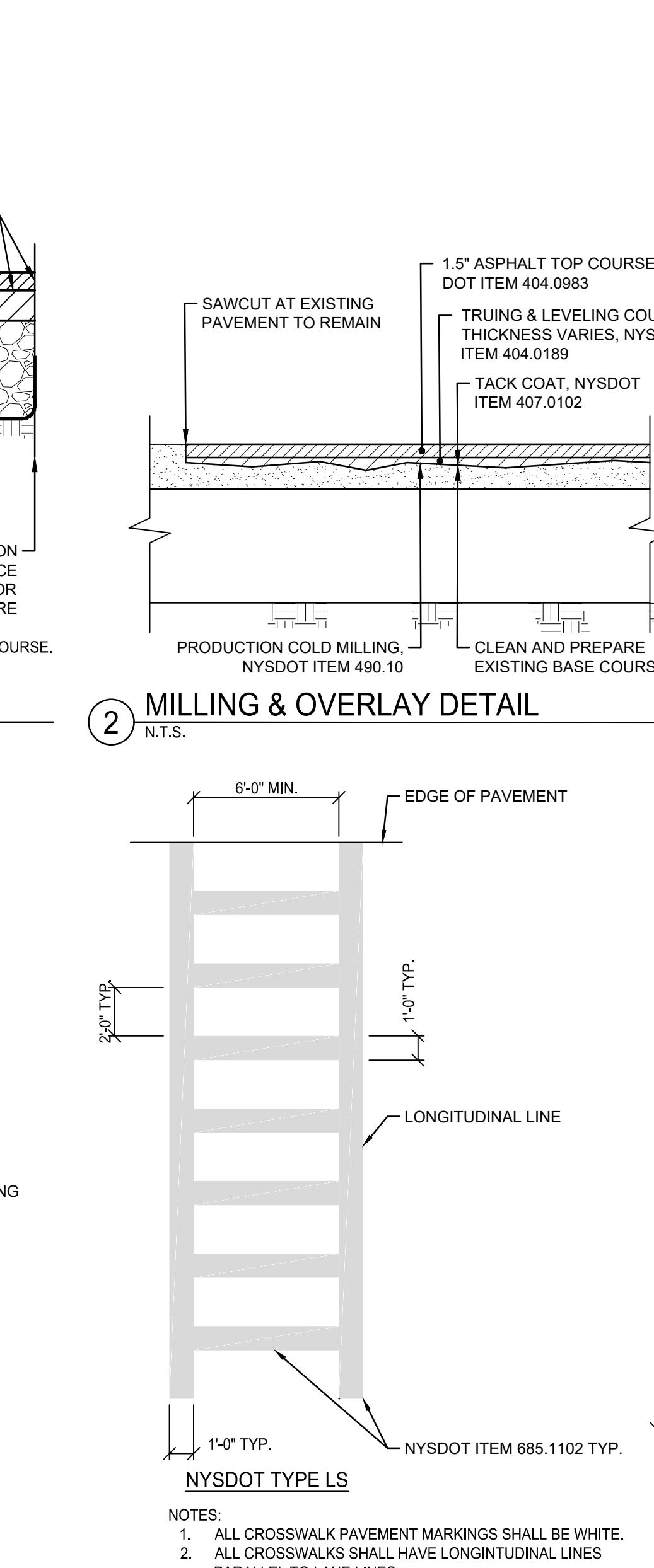
5 TYPICAL SIDEWALK JOINTS

N.T.S.



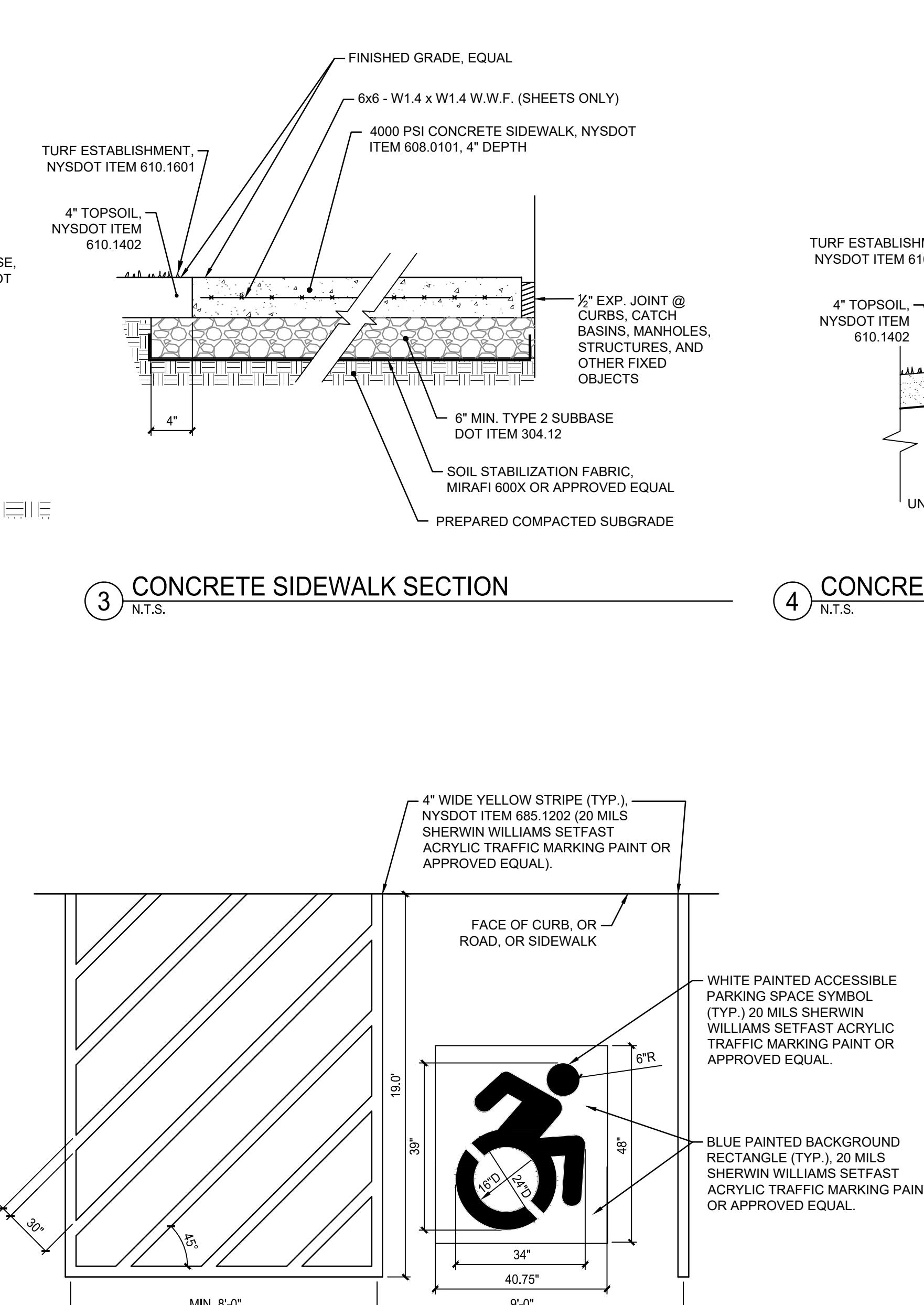
6 CONCRETE CURB DETAIL

N.T.S.



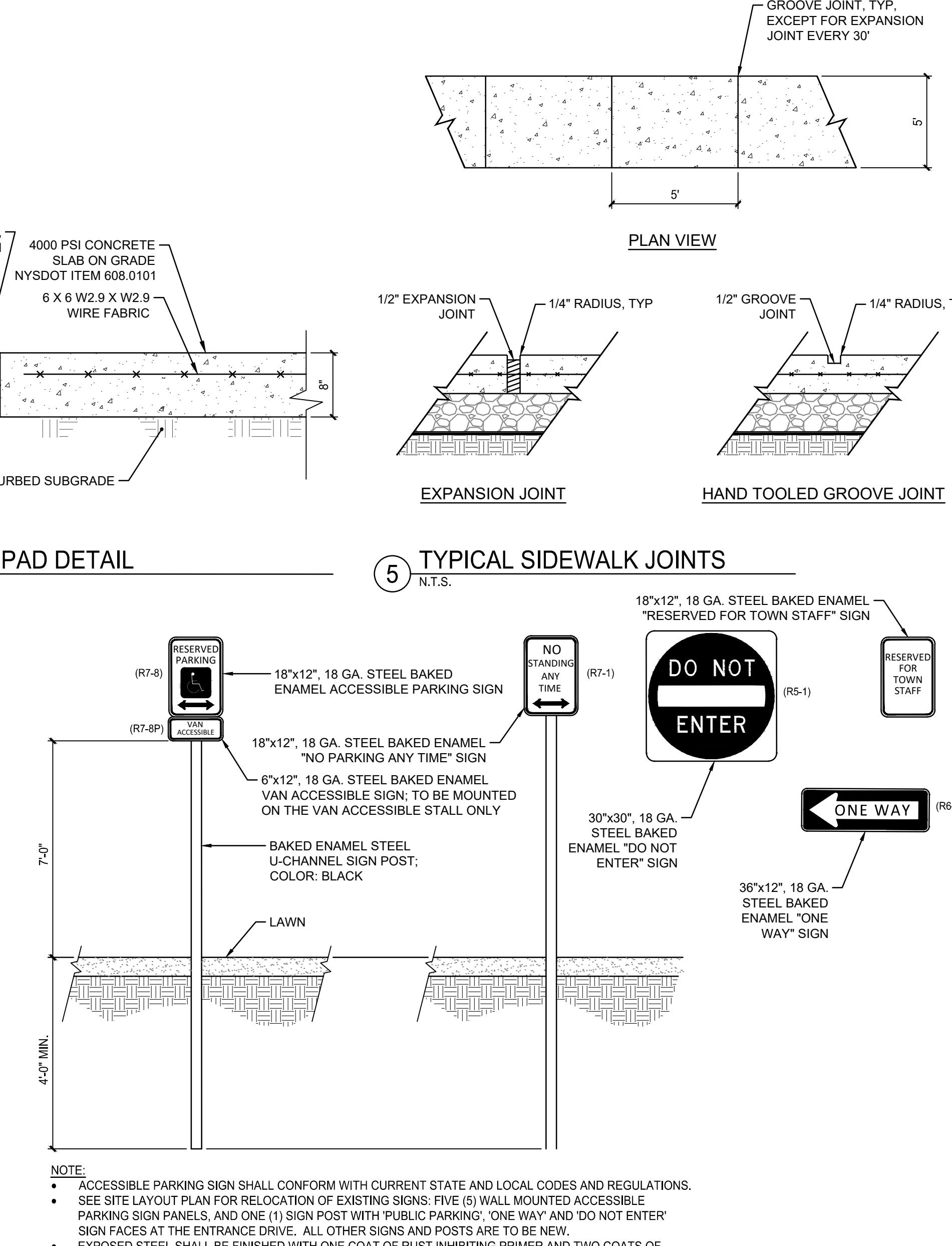
7 CROSSWALK PAVEMENT MARKING

SCALE: N.T.S.



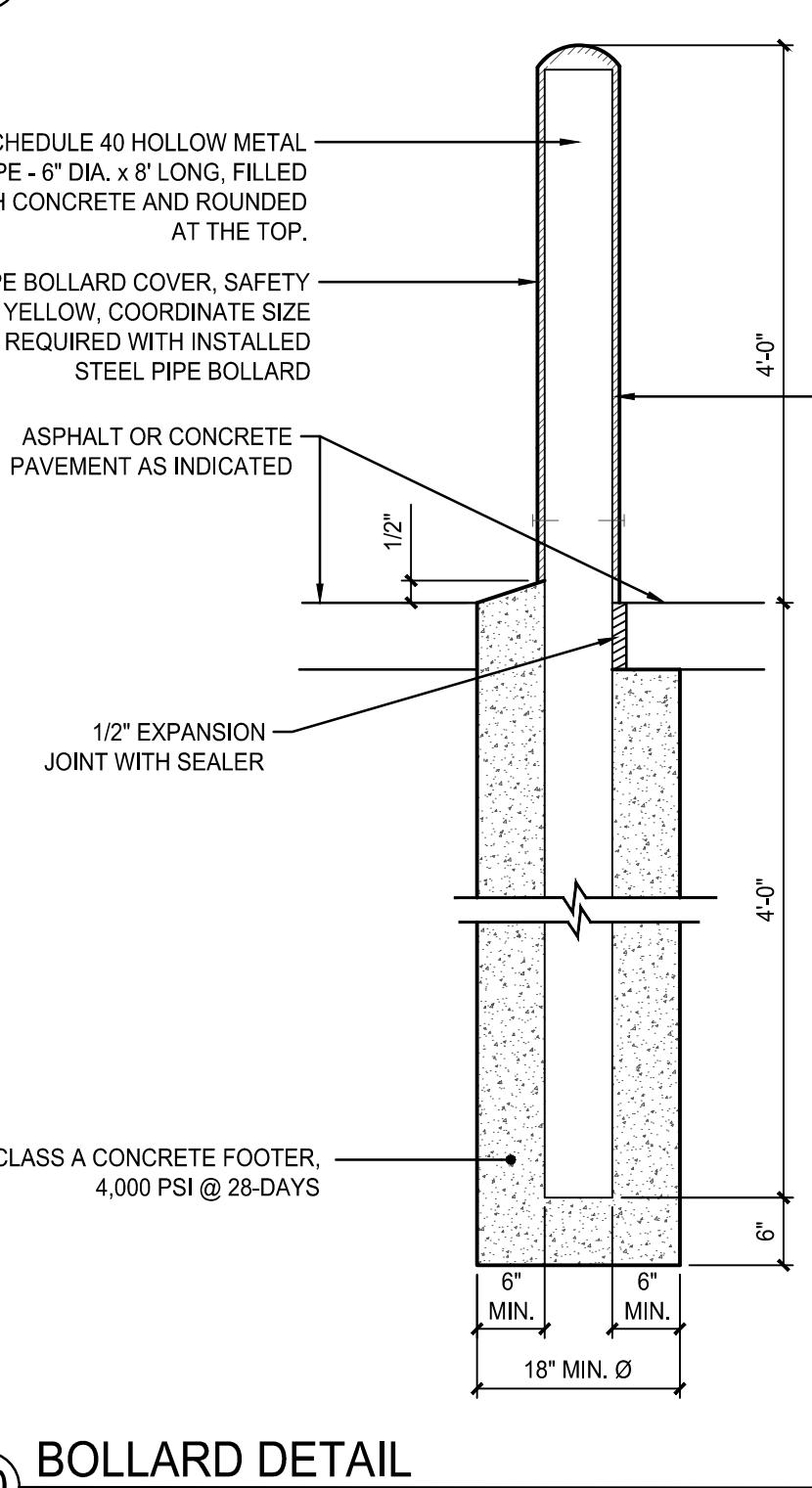
8 ACCESSIBLE PARKING SPACE AND ACCESS AISLE

N.T.S.



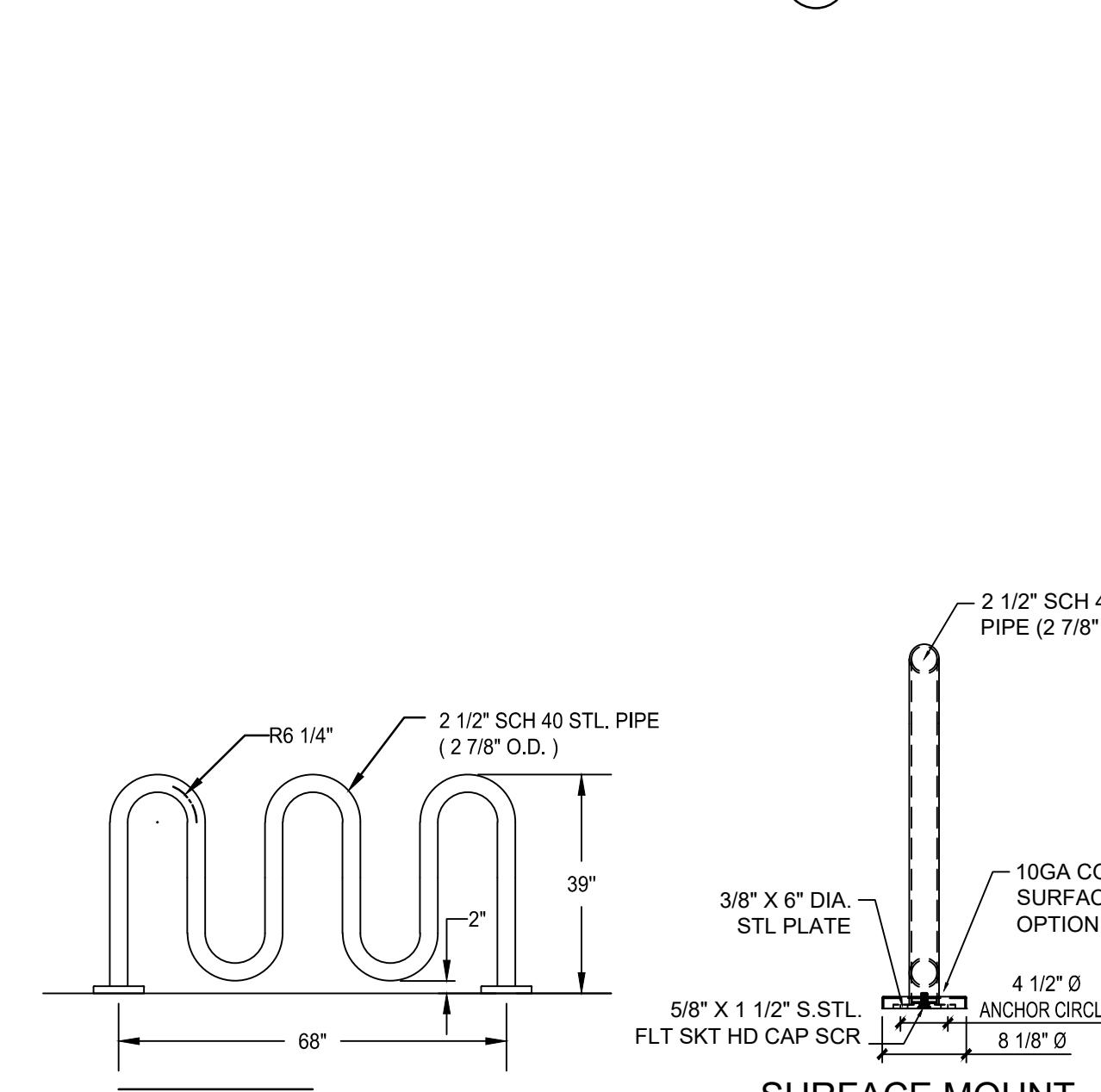
9 PARKING SIGNS DETAIL

N.T.S.



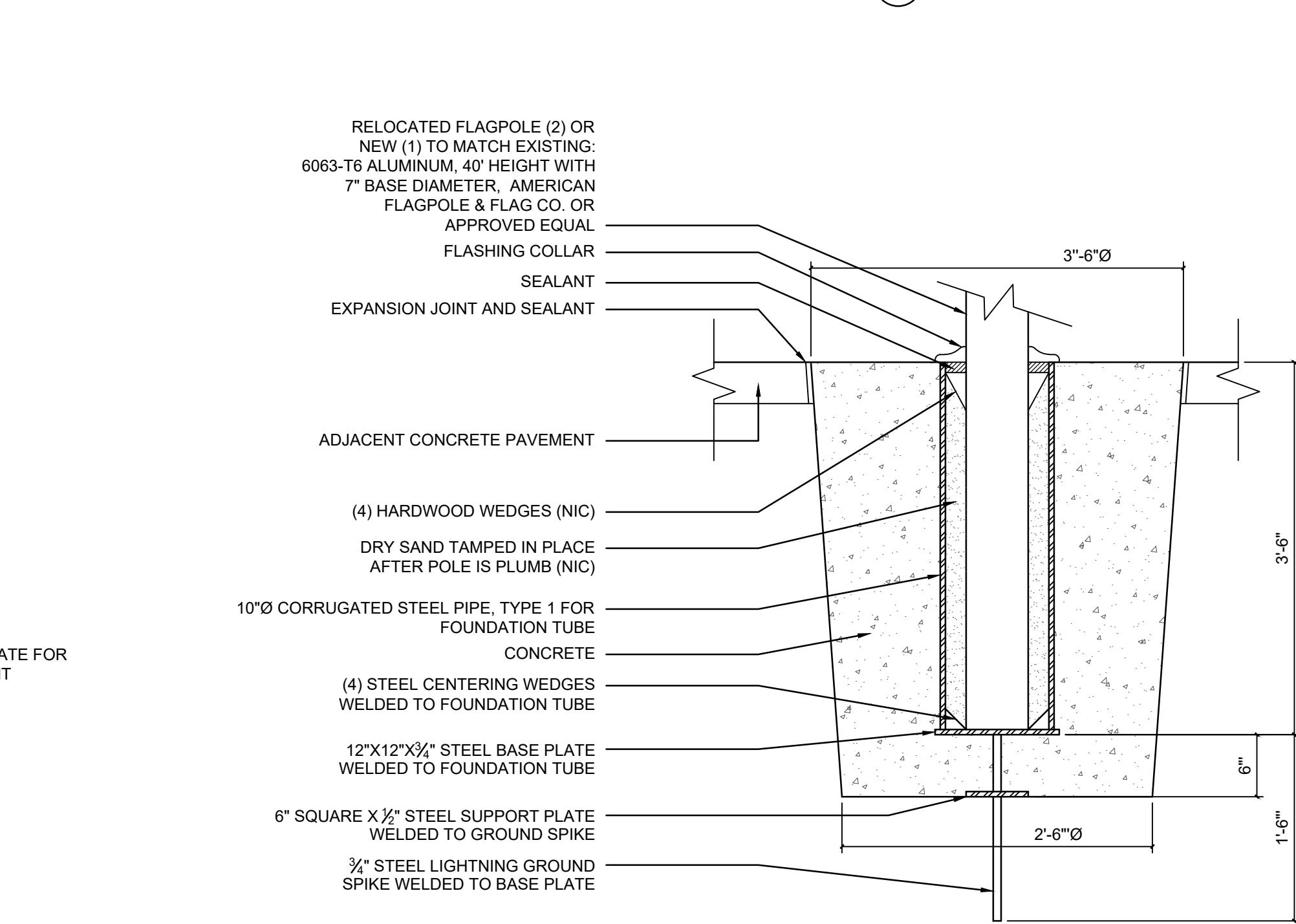
10 BOLLARD DETAIL

N.T.S.



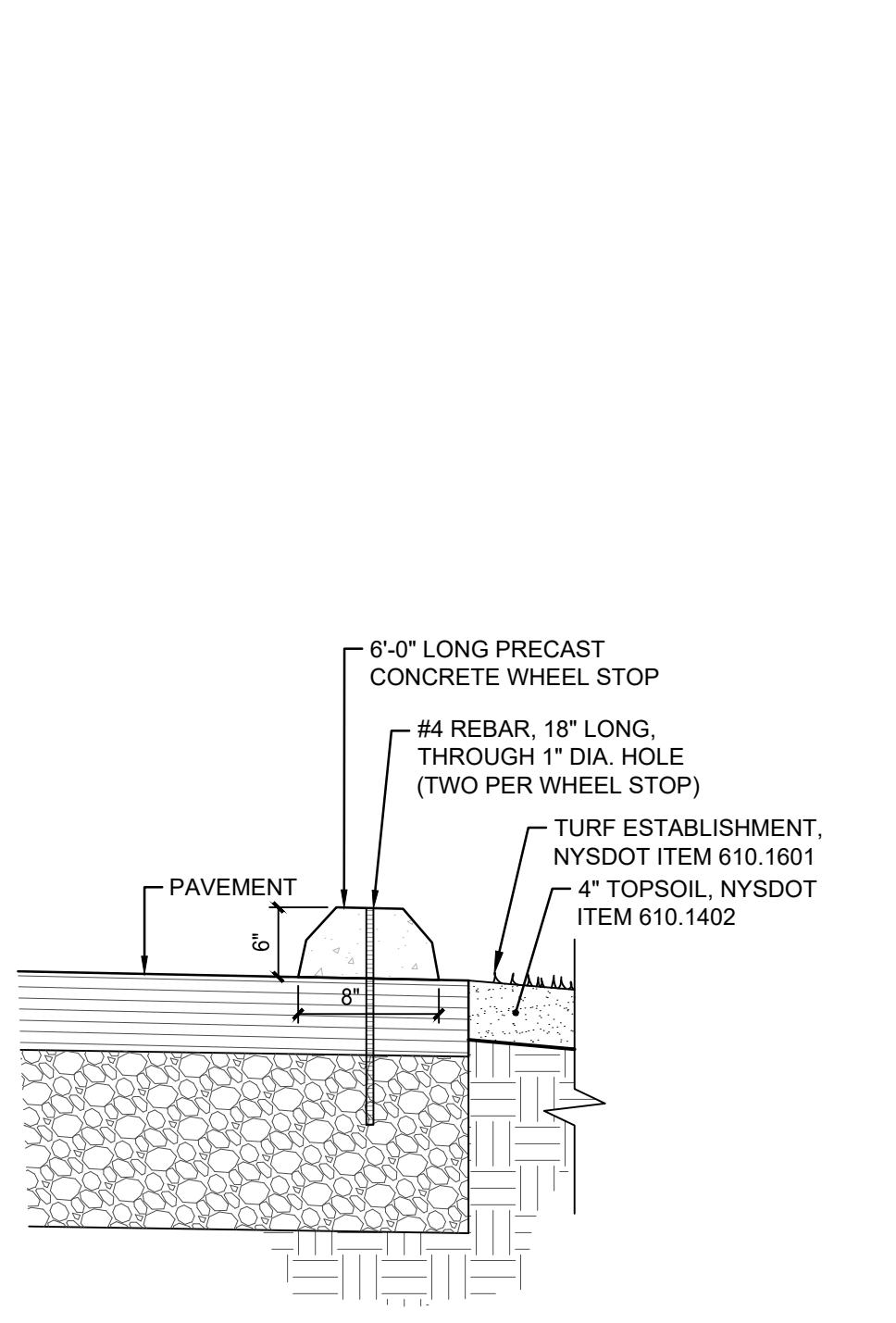
11 BICYCLE RACK DETAIL

N.T.S.



12 FLAGPOLE FOUNDATION

N.T.S.



13 PRECAST WHEEL STOP DETAIL

N.T.S.



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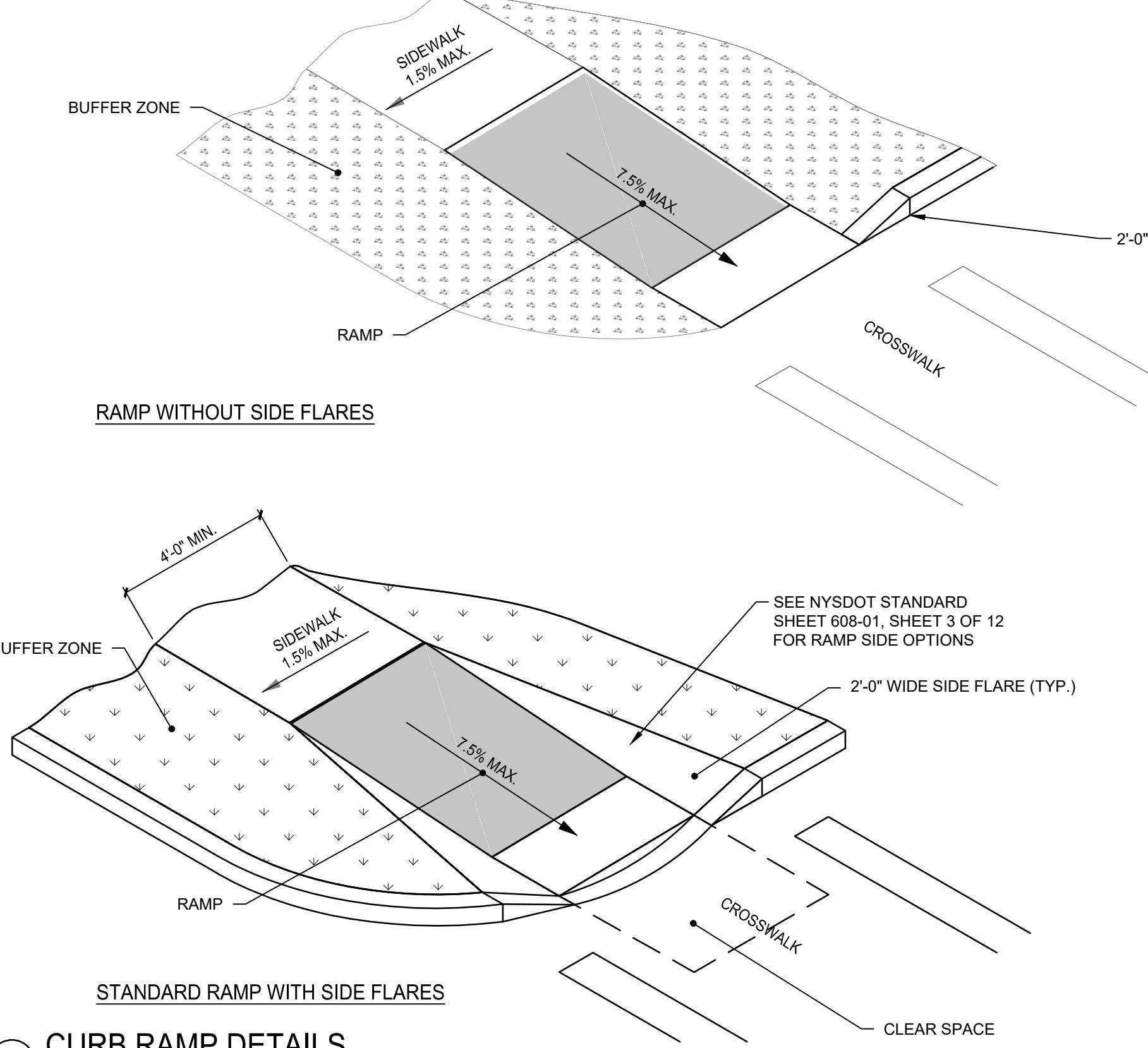
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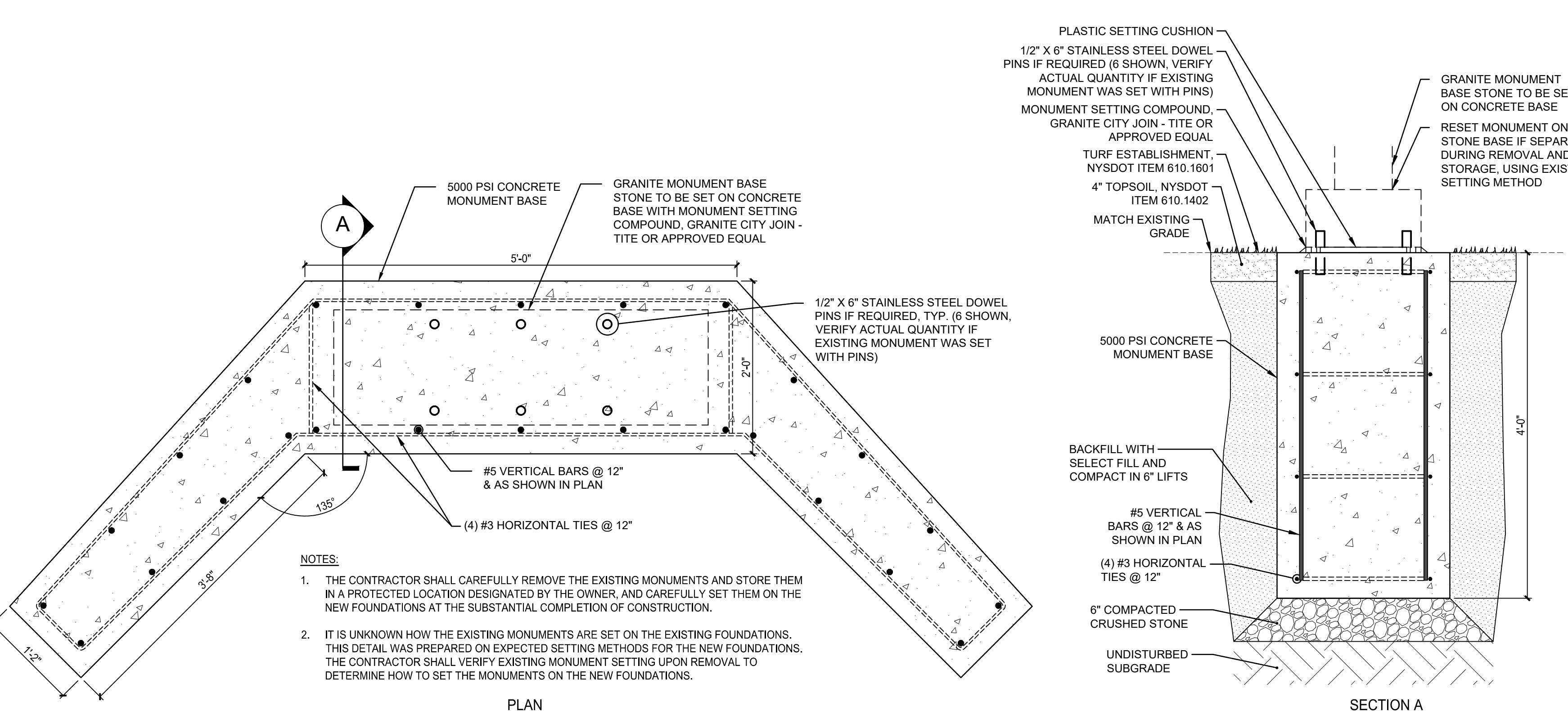
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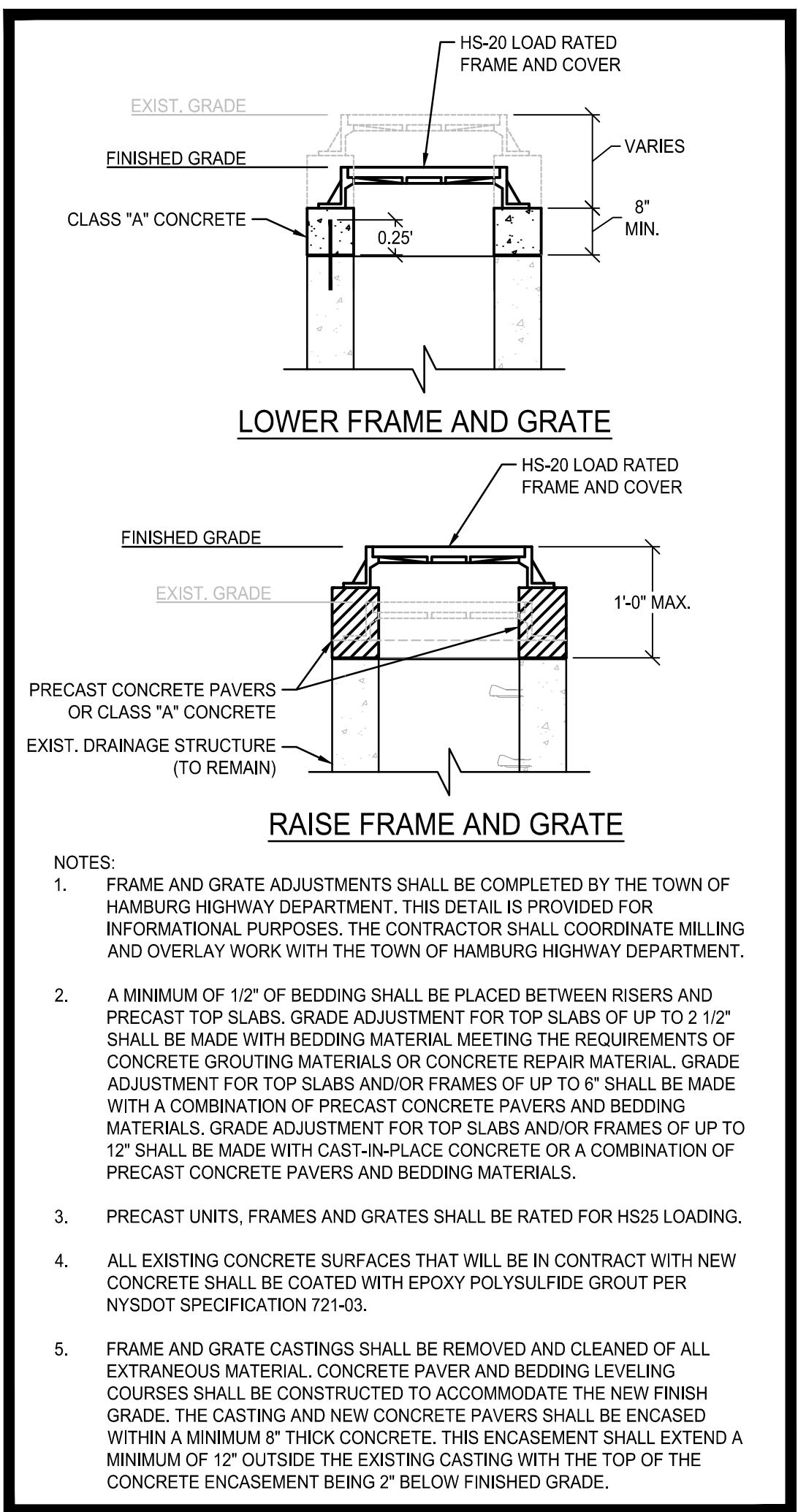
1 CURB RAMP DETAILS

SCALE: N.T.S. NYS DOT DETAIL



2 MONUMENT BASE DETAIL

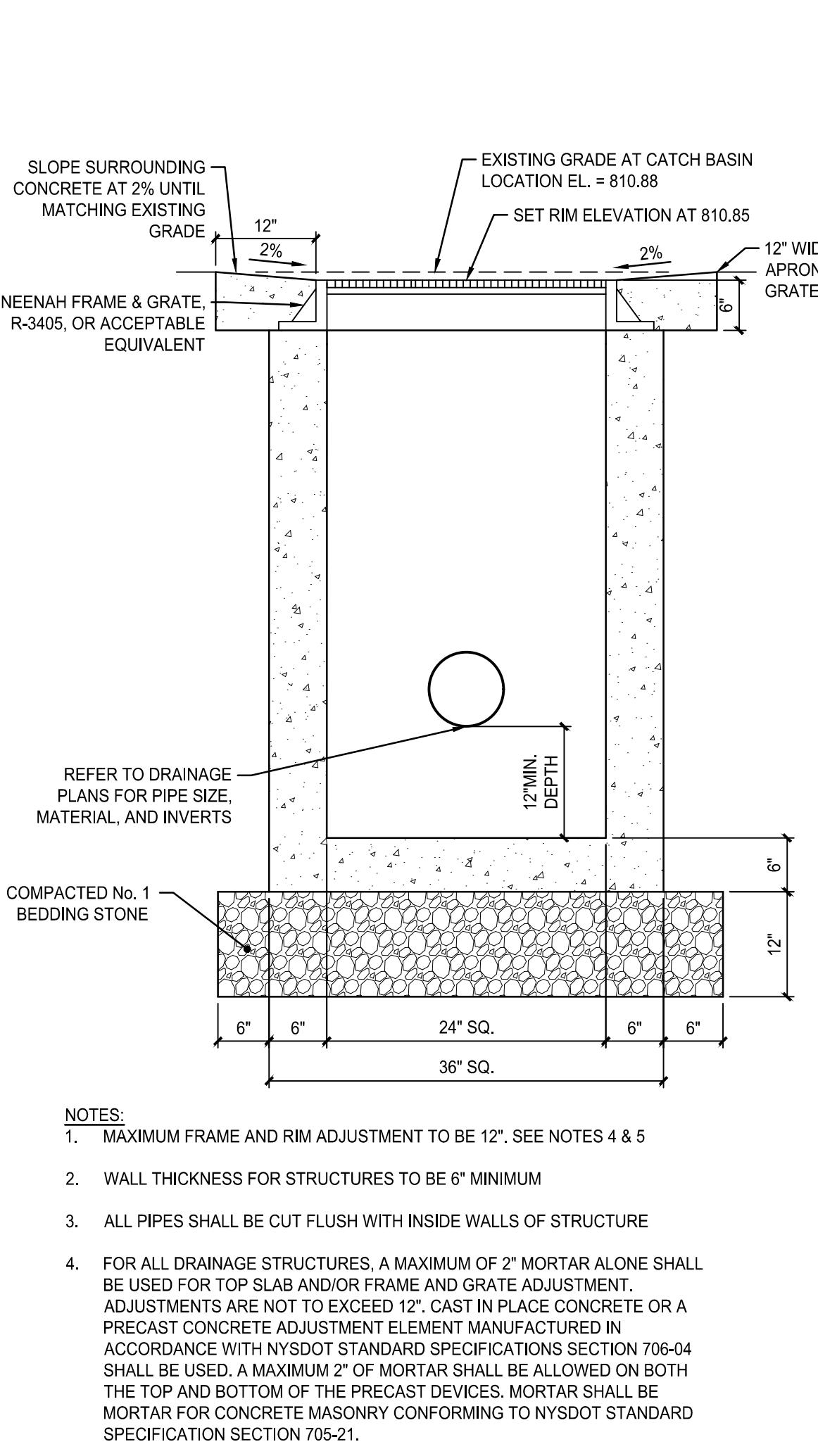
SCALE: N.T.S.



FOR INFORMATION ONLY
FRAME AND GRATE SETTING SHALL BE COMPLETED BY THE OWNER.
CONTRACTOR SHALL COORDINATE MILLING & PAVING WORK WITH
THE OWNER'S SCHEDULE.

3 FRAME AND GRATE RESETTING DETAIL

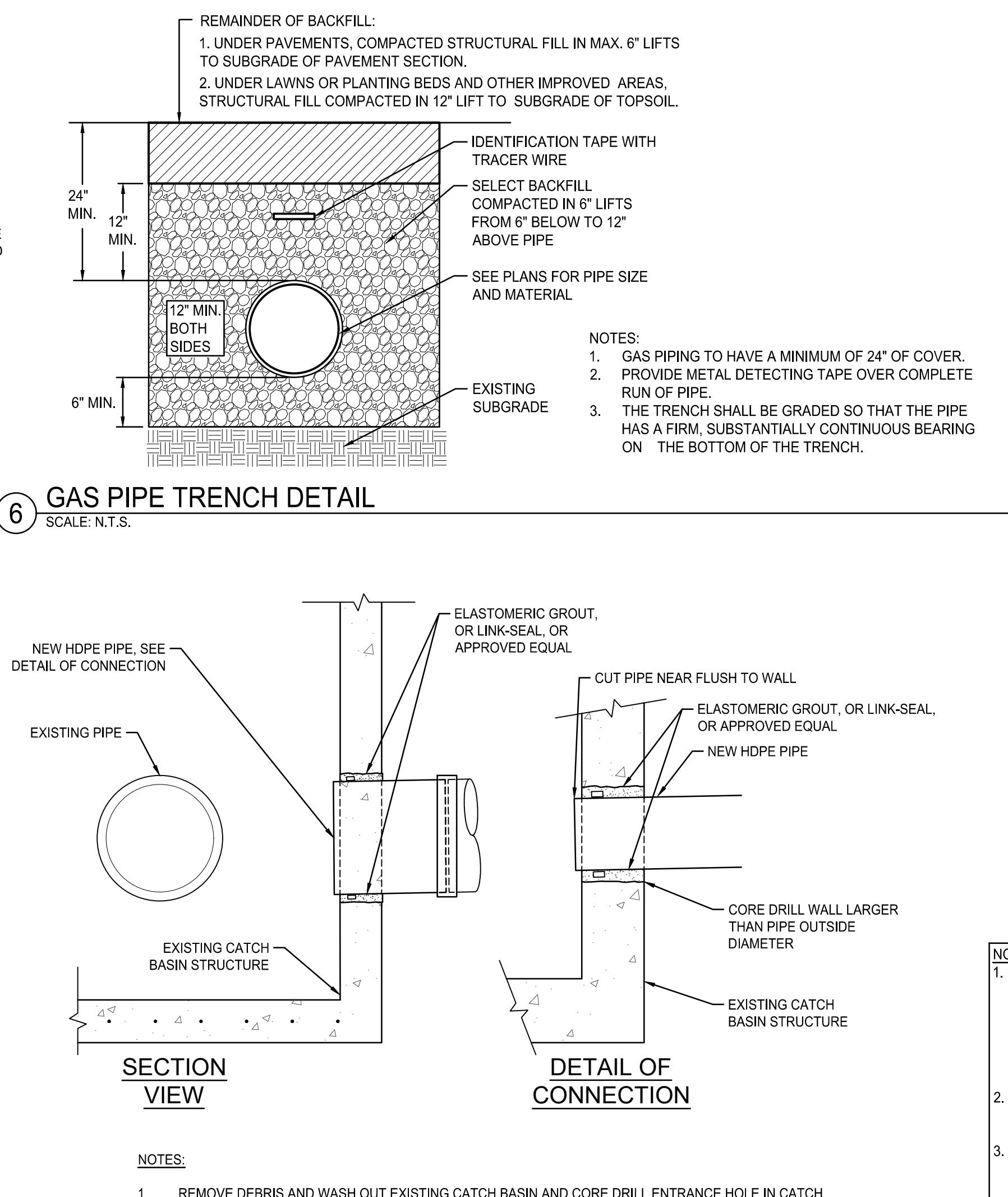
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CONTRACTOR SHALL COORDINATE MILLING & PAVING WORK WITH
THE OWNER'S SCHEDULE.

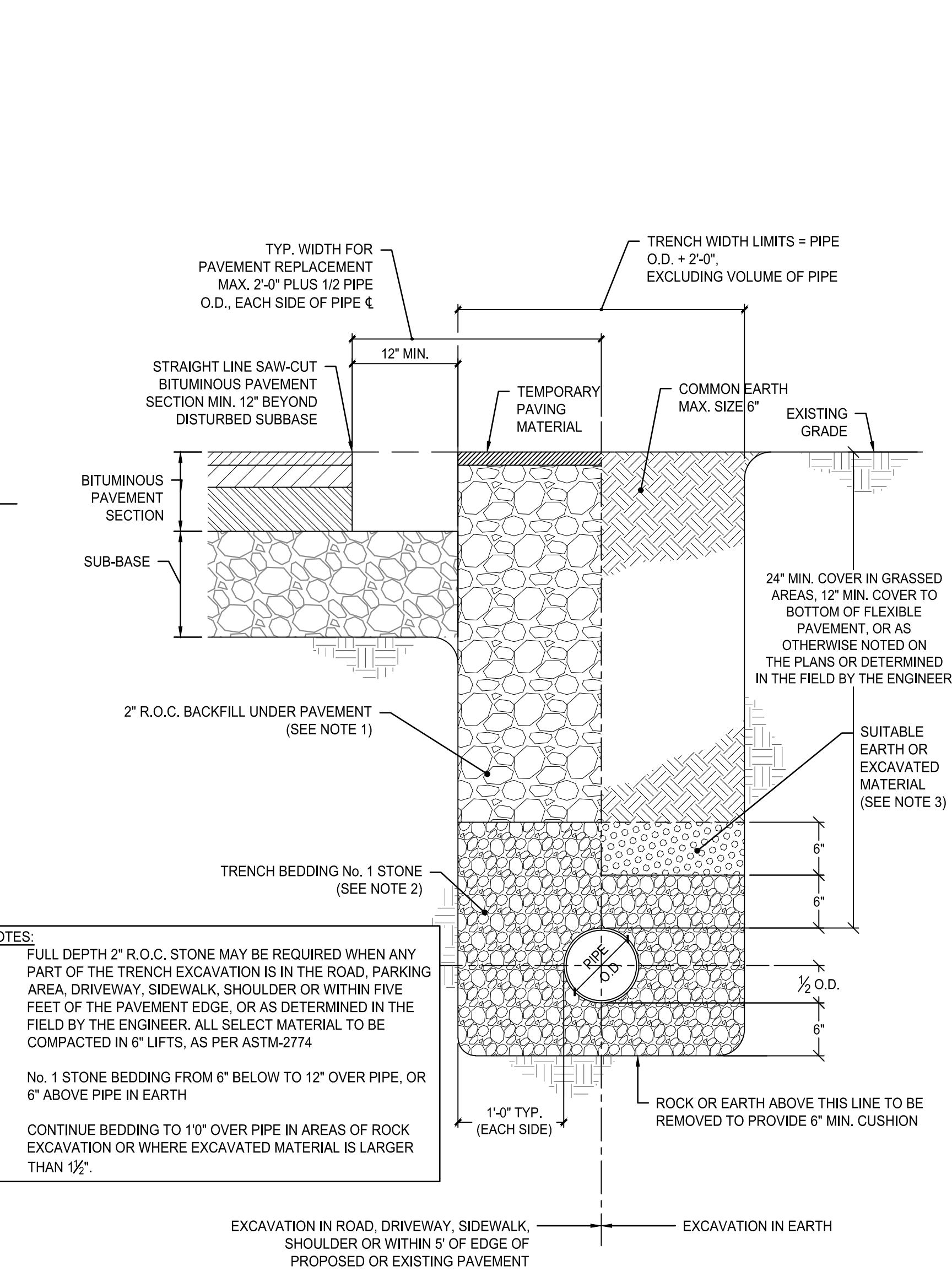
4 CATCH BASIN DETAIL

SCALE: N.T.S.



5 CONNECT TO EXISTING STRUCTURE DETAIL

SCALE: N.T.S.



7 STORM SEWER TRENCH DETAIL

SCALE: N.T.S.



NOTE:
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NO.	REVISIONS	DATE
DWG. TITLE		

SITE DETAILS

0	1"	2"
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PROJ. No.	300825PKLOT	
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EROSION AND SEDIMENT CONTROL SPECIFICATION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, INSPECTING, MAINTAINING, AND REMOVING SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE CONTRACT DOCUMENTS OR AS ORDERED BY THE TOWN ENGINEER DURING THE LIFE OF THE CONTRACT TO PROVIDE SOIL EROSION AND SEDIMENT CONTROL. THIS WORK SHALL BE COORDINATED WITH THE SOIL EROSION AND SEDIMENT CONTROL FEATURES SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS TO THE EXTENT PRACTICAL TO ASSURE EFFECTIVE AND CONTINUOUS SOIL EROSION AND SEDIMENT CONTROL THROUGHOUT THE CONSTRUCTION AND POST CONSTRUCTION PERIOD.
- 1. EROSION CONTROL: SEE 1.2.A. FOR THE DEFINITION OF EROSION CONTROL. THE FOLLOWING ITEMS OF WORK ARE PROVIDED IN THIS SECTION TO ADDRESS SOIL EROSION CONTROL - MULCH, STRAW/WOOD FIBER MULCH, SEED AND MULCH, SEED AND STRAW/WOOD FIBER MULCH, ALL CLASSES AND TYPES OF ROLLED EROSION CONTROL PRODUCTS, AND SOIL STABILIZERS. OTHER ITEMS MAY BE PROVIDED IN THE CONTRACT DOCUMENTS TO PROVIDE SOIL EROSION CONTROL (E.G., TURF ESTABLISHMENT, BANK AND CHANNEL PROTECTION, ETC.).
- 2. SEDIMENT CONTROL: SEDIMENT CONTROL IS ANY ACTION TAKEN OR ITEM USED AS PART OF A PROJECT OR AS A SEPARATE ACTION TO MINIMIZE SUSPENDED SOLID MATERIAL TRANSPORT BY WATER. THE FOLLOWING ITEMS OF WORK ARE PROVIDED IN THIS SECTION TO ADDRESS SEDIMENT CONTROL - SILT FENCE, CHECK DAM, INLET PROTECTION.

1.2 DEFINITIONS

- A. EROSION CONTROL: EROSION CONTROL IS ANY ACTION TAKEN OR ITEM USED AS PART OF A PROJECT OR AS A SEPARATE ACTION TO MINIMIZE THE DESTRUCTIVE EFFECTS OF WIND AND WATER ON SURFACE SOIL. THE USE AND PLACEMENT OF BERMS AND DAMS, FIBER MATS, GRASSES, SOD, MULCHES, SLOPE DRAINS, SEDIMENT BASINS AND DRAINAGE SYSTEMS MAY BE TEMPORARY AND USED THROUGHOUT CONSTRUCTION, OR PERMANENT AND INSTALLED FOR THE ANTICIPATED LIFE OF THE FACILITY.
- B. NYSDDEC - NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.
- C. SPDES - STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM.
- D. MS4 - MEANS A CITY, TOWN OR VILLAGE WITH LAND USE CONTROL AUTHORITY THAT IS REQUIRED TO GAIN COVERAGE UNDER NYSDDEC'S SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM MUNICIPAL SEPARATE STORMWATER SEWER SYSTEMS (MS4S).
- E. GENERAL PERMIT - SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY (GP-0-25-001).
- F. IT CAN ALSO MEAN SOMEONE WORKING UNDER THE DIRECT SUPERVISION OF, AND AT THE SAME COMPANY AS, THE LICENSED PROFESSIONAL ENGINEER OR REGISTERED LANDSCAPE ARCHITECT, PROVIDED THAT PERSON HAS TRAINING IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROL TRAINING IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROL MEANS THAT THE INDIVIDUAL WORKING UNDER THE DIRECT SUPERVISION OF THE LICENSED PROFESSIONAL ENGINEER OR REGISTERED LANDSCAPE ARCHITECT HAS RECEIVED FOUR (4) HOURS OF DEPARTMENT ENDORSED TRAINING IN PROPER EROSION AND SEDIMENT CONTROL PRINCIPLES FROM A SOIL AND WATER CONSERVATION DISTRICT, OR OTHER DEPARTMENT ENDORSED ENTITY. AFTER RECEIVING THE INITIAL TRAINING, THE INDIVIDUAL WORKING UNDER THE DIRECT SUPERVISION OF THE LICENSED PROFESSIONAL ENGINEER OR REGISTERED LANDSCAPE ARCHITECT SHALL RECEIVE FOUR (4) HOUR OF TRAINING EVERY THREE (3) YEARS.

IT CAN ALSO MEAN A PERSON THE MEETS THE QUALIFIED PROFESSIONAL QUALIFICATIONS IN ADDITION TO THE QUALIFIED INSPECTOR QUALIFICATIONS.

NOTE: INSPECTIONS OF ANY POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES THAT INCLUDE STRUCTURAL COMPONENTS, SUCH AS A DAM FOR AN IMPOUNDMENT, SHALL BE PERFORMED BY A LICENSED PROFESSIONAL ENGINEER.

H. QUALIFIED PROFESSIONAL - MEANS A PERSON THAT IS KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICES OF STORMWATER MANAGEMENT AND TREATMENT, SUCH AS A LICENSED PROFESSIONAL ENGINEER, REGISTERED LANDSCAPE ARCHITECT OR OTHER DEPARTMENT ENDORSED INDIVIDUAL(S), INDIVIDUALS PREPARING SWPPS THAT REQUIRE THE POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICE COMPONENT MUST HAVE AN UNDERSTANDING OF THE PRINCIPLES OF HYDROLOGY, WATER QUALITY MANAGEMENT PRACTICE DESIGN, WATER QUANTITY CONTROL DESIGN, AND, IN MANY CASES, THE PRINCIPLES OF HYDRAULICS IN ORDER TO PREPARE A SWPPP THAT CONFORMS TO THE DEPARTMENT'S TECHNICAL STANDARD. ALL COMPONENTS OF THE SWPPP THAT INVOLVE THE PRACTICE OF ENGINEERING, AS DEFINED BY THE NY'S EDUCATION LAW (SEE ARTICLE 145), SHALL BE PREPARED BY, OR UNDER THE DIRECT SUPERVISION OF, A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF NEW YORK.

I. TRAINED CONTRACTOR - MEANS AN EMPLOYEE FROM THE CONTRACTING (CONSTRUCTION) COMPANY, IDENTIFIED IN PART III.A.6 OF THE GENERAL PERMIT, THAT HAS RECEIVED FOUR (4) HOURS OF DEPARTMENT ENDORSED TRAINING IN PROPER EROSION AND SEDIMENT CONTROL PRINCIPLES FROM A SOIL AND WATER CONSERVATION DISTRICT, OR OTHER DEPARTMENT ENDORSED ENTITY. AFTER RECEIVING THE INITIAL TRAINING, THE TRAINED CONTRACTOR SHALL RECEIVE FOUR (4) HOURS OF TRAINING EVERY THREE (3) YEARS.

IT CAN ALSO MEAN AN EMPLOYEE FROM THE CONTRACTING (CONSTRUCTION) COMPANY, IDENTIFIED IN PART III.A.6. OF THE GENERAL PERMIT, THAT MEETS THE QUALIFIED INSPECTOR OR QUALIFIED PROFESSIONAL ENGINEER, CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (PESCE), REGISTERED LANDSCAPE ARCHITECT, OR SOMEONE WORKING UNDER THE DIRECT SUPERVISION OF, AND AT THE SAME COMPANY AS, THE LICENSED PROFESSIONAL ENGINEER OR REGISTERED LANDSCAPE ARCHITECT, PROVIDED THEY HAVE RECEIVED FOUR (4) HOURS OF DEPARTMENT ENDORSED TRAINING IN PROPER EROSION AND SEDIMENT CONTROL PRINCIPLES FROM A SOIL AND WATER CONSERVATION DISTRICT, OR OTHER DEPARTMENT ENDORSED ENTITY.

THE TRAINED CONTRACTOR WILL BE RESPONSIBLE FOR THE DAY TO DAY IMPLEMENTATION OF THE SWPPP.

1.3 QUALITY ASSURANCE

- A. REFERENCED STANDARDS:

- 1. NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, SOIL AND WATER CONSERVATION SOCIETY, EMPIRE STATE CHAPTER, LATEST REVISION.
- 2. NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (NYSDOTSS) SECTION 209, LATEST REVISION.

1.4 REGULATORY REQUIREMENTS

- A. COMPLY WITH REQUIREMENTS OF THE GENERAL PERMIT GP-0-25-001.
- B. COMPLY WITH REQUIREMENTS AND STANDARDS OF LOCAL MUNICIPALITY, COUNTY AND LOCAL SOIL AND WATER CONSERVATION DISTRICT.

1.5 CONTRACTOR'S RESPONSIBILITIES

- A. STABILIZATION: THE CONTRACTOR SHALL INITIATE STABILIZATION MEASURES AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. THIS REQUIREMENT DOES NOT APPLY IN THE FOLLOWING INSTANCES:
 - 1. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
 - 2. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN TWENTY-ONE (21) DAYS, TEMPORARY STABILIZATION MEASURES NEED NOT BE INITIATED ON THAT PORTION OF THE SITE.
- B. MAINTENANCE: SEDIMENT SHALL BE REMOVED FROM SEDIMENT TRAPPING PRACTICES WHENEVER THEIR CAPACITY HAS BEEN REDUCED BY FIFTY (50) PERCENT FROM THE DESIGN CAPACITY.
- C. DUTY TO MITIGATE: THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL TAKE ALL REASONABLE STEPS TO MINIMIZE OR PREVENT EROSION AND SEDIMENTATION.
- D. PROPER OPERATION AND MAINTENANCE: THE CONTRACTOR SHALL AT ALL TIMES PROPERLY OPERATE AND MAINTAIN ALL FACILITIES AND SYSTEMS OF TREATMENT AND CONTROL (AND RELATED APPURTENANCES) WHICH ARE INSTALLED OR USED BY THE CONTRACTOR TO MINIMIZE OR PREVENT EROSION AND SEDIMENTATION.

1.6 COOPERATION

- A. EXAMINE DRAWINGS AND SPECIFICATIONS FOR OTHER CONTRACTS, TO DETERMINE NATURE OF PROPOSED CONSTRUCTION, PERFORM WORK TO CONFORM TO CONSTRUCTION CALLED FOR IN SUCH A MANNER AS NOT TO INTERFERE OR DELAY WORK OF OTHER CONTRACTORS.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. UNLESS OTHERWISE STATED ELSEWHERE IN THE CONTRACT DOCUMENTS, MATERIALS SHALL BE AS STATED HEREIN.
- B. MULCH: MULCH SHALL BE IN CONFORMANCE WITH NYSDOTSS #713-18 HAY, #713-19 STRAW, OR #713-11 WOOD FIBER MULCH.
- C. TEMPORARY SEED: SEED SHALL BE RYEGRASSES (ANNUAL OR PERENNIAL) OR CEREAL GRASSES SUITABLE TO THE AREA AND AS A TEMPORARY COVER WHICH WILL NOT COMPETE WITH THE GRASSES SOWN LATER FOR PERMANENT COVER.
- D. STONE FILLING: STONE FILLING SHALL MEET THE REQUIREMENTS OF NYSDOTSS #820-2.02 STONE FILLING, LIGHT.
- E. GEOTEXTILE: GEOTEXTILES SHALL MEET THE REQUIREMENTS OF NYSDOTSS #207-2 MATERIALS. UV SENSITIVE GEOTEXTILES SHALL BE PROTECTED FROM EXPOSURE TO SUNLIGHT DURING TRANSPORT AND STORAGE.
- F. SILT FENCE:
 - 1. POSTS: 1" GALVANIZED STEEL CHANNEL POST, "T" POST OR 1-1/4" NOMINAL SQUARE HARDWOOD STAKE OF SOUND QUALITY.
 - 2. FENCE: MINIMUM 14.5 GAGE, WITH MAXIMUM 6-INCH MESH OPENING.
 - 3. GEOTEXTILE FABRIC: "MIRAFI 100X" AS MANUFACTURED BY TC MIRAFI, PENDERGRASS, GA 30567, 1-888-795-0808 OR ACCEPTABLE EQUIVALENT.
- G. PREFABRICATED SILT FENCE: "MIRAFI ENVIRONFENCE" AS MANUFACTURED BY TC MIRAFI, PENDERGRASS, GA 30567, 1-888-795-0808; "AEC PRE-ASSEMBLED SILT FENCE" AS MANUFACTURED BY AMERICAN ENGINEERING FABRICS, INC., BRIDGEWATER, MA, 02324, 1-800-770-2666 OR ACCEPTABLE EQUIVALENT.
- H. GRAVEL BAG: BAGS SHALL BE FABRICATED FROM REINFORCED WOVEN GEOTEXTILE AND SHALL INCLUDE TIES. NO BURLAP BAGS SHALL BE ALLOWED, AND APPROPRIATE SAWDUST SHALL MEET THE GRADATION REQUIREMENTS OF SIZE DESIGNATION #1 OR #2 OF NYSDOTSS TABLE 703.4 AND SHALL BE USED AS THE FILL MATERIAL. EACH GRAVEL BAG SHALL BE INDIVIDUALLY TIED AND DOUBLE BAGGED. THE BAG WITH FILL MATERIAL SHALL BE INVERSELY INSERTED INTO THE SECOND BAG IN ORDER TO PREVENT LEAKAGE.
- I. SAND BAG: SAND BAGS SHALL MEET THE REQUIREMENTS OF NYSDOTSS #209-2.09 GRAVEL BAG EXCEPT THAT SAND MEETING THE GRADATION REQUIREMENTS OF NYSDOTSS #703-06 CUSHION SAND SHALL BE USED AS THE FILL MATERIAL.

PART 3 - EXECUTION

3.1 GENERAL

- A. IN THE EVENT OF CONFLICT BETWEEN THESE SPECIFICATION REQUIREMENTS AND POLLUTION CONTROL LAWS, RULES, REGULATIONS OR PERMIT CONDITIONS BY OTHER FEDERAL OR STATE OR LOCAL GOVERNMENT AGENCIES, THE MORE RESTRICTIVE LAWS, RULES OR REGULATIONS SHALL APPLY.
- B. ALL WORK DONE UNDER THIS SECTION SHALL BE PERFORMED CONSISTENT WITH NYSDOTSS §107-12 WATER QUALITY PROTECTION AND INCLUDED AS PART OF THE CONSTRUCTION SCHEDULE SUBMITTED BY THE CONTRACTOR UNDER CONTRACT GENERAL AND SUPPLEMENTAL PROVISIONS FOR START AND PROGRESS OF WORK. THE CONTRACTOR'S SCHEDULES AND METHODS SHALL BE CONSISTENT WITH THE SOIL EROSION AND SEDIMENT CONTROL PLAN INCLUDED IN THE CONTRACT DOCUMENTS OR THE MODIFIED PLAN APPROVED BY THE TOWN ENGINEER. THE CONTRACTOR SHALL BEGIN EARTHWORK ONLY AFTER RECEIVING WRITTEN APPROVAL FROM THE TOWN ENGINEER FOR THE SCHEDULING OF EARTHWORK AND WORK COVERED UNDER THIS SECTION.
- C. THE CONTRACTOR SHALL DESIGNATE TO THE TOWN ENGINEER AN EROSION AND SEDIMENT CONTROL SUPERVISOR WHO IS A TRAINED CONTRACTOR WITH ADEQUATE EXPERIENCE AND AUTHORITY TO IMPLEMENT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
- D. PERIMETER SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO PERFORMING GRUBBING, EXCAVATION, BORROW AND EMBANKMENT OPERATIONS IN PROGRESS, COMMENSURATE WITH THEIR CAPABILITY AND PROGRESS IN KEEPING THE FINISH GRADING, MULCHING, SEEDING AND OTHER TEMPORARY AND/OR PERMANENT CONTROL MEASURES CURRENT IN ACCORDANCE WITH THE APPROVED SCHEDULE. UNDER NO CONDITION SHALL EARTH MATERIALS EXPOSED BY GRUBBING, EXCAVATION, BORROW OR FILL OR OTHER WORK BE LEFT WITHOUT APPLICATION OF TEMPORARY OR PERMANENT EROSION CONTROLS FOR A PERIOD OF GREATER THAN 7 DAYS. THE TOWN ENGINEER MAY DETERMINE THAT A POTENTIAL FOR EROSION AND SEDIMENTATION EXIST, AND IN THAT CASE, THE CONTRACTOR SHALL ESTABLISH EROSION AND SEDIMENT CONTROL MEASURES. PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES CANNOT BE INSTALLED DUE TO SEASONAL OR OTHER LIMITATIONS. TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, PRIOR TO REMOVING OR DISTURBING ANY EROSION OR SEDIMENT CONTROL MEASURE THAT MAY BE REQUIRED TO BE REESTABLISHED DUE TO CONTINUOUS GRADING OPERATIONS. THE CONTRACTOR SHALL VERIFY THE PROPOSED PROGRESSION OF OPERATIONS AND THE REESTABLISHMENT OF CONTROL MEASURES WITH THE TOWN ENGINEER TO ENSURE THE CONTINUITY OF EROSION AND SEDIMENT CONTROL.
- E. SEDIMENT CONTROL MEASURES SHALL NOT BE REMOVED WITHOUT THE TOWN ENGINEER'S APPROVAL.
- F. NO DEVIATION FROM THE SPECIFICATIONS WILL BE ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
- G. ALL SOIL STOCKPILES ARE TO BE MULCHED AND SEEDED WITHIN FOURTEEN (14) CALENDAR DAYS AFTER GRADING.
- H. STUMPS AND BRUSH MAY NOT BE BURIED.
- I. NO DEVIATION FROM THE SPECIFICATIONS WILL BE ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
- J. INSTALLATION OF ALL EROSION AND SEDIMENT CONTROL PRACTICES TO BE IN ACCORDANCE WITH THE CURRENT CONSTRUCTION DRAWINGS (PLANS, NOTES, AND DETAILS).

3.2 INSPECTION AND MAINTAINANCE

- A. SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR DURING THE LIFE OF THE PROJECT, INCLUDING WINTER SHUTDOWN, ETC. SUCH INSPECTION AND MAINTENANCE SHALL CONTINUE UNTIL AFTER THE PERMANENT STABILIZATION MEASURES ARE IN PLACE AND THE TEMPORARY CONTROL MEASURES ARE ORDERED TO BE REMOVED BY THE TOWN ENGINEER. THE REMAINING DISTURBED AREA SHALL BE PERMANENTLY STABILIZED AS INDICATED IN THE CONTRACT DOCUMENTS.
- B. ALL TEMPORARY CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR AT LEAST EVERY SEVEN CALENDAR DAYS, AFTER EACH RAINFALL OF 1/2-INCH (12 MM) OR MORE WITHIN A 12-HOUR PERIOD, OR DAILY DURING PROLONGED RAINFALL TO DETERMINE IF THE MEASURE IS FUNCTIONING AS INTENDED. ALL INSPECTIONS SHALL BE COMPLETED WITHIN ONE CALENDAR DAY.
- C. WITHIN 3 CALENDAR DAYS FROM COMPLETION OF THE INSPECTION, THE CONTRACTOR SHALL:
 - 1. REPAIR OR REBUILD THE CONTROL MEASURE TO FUNCTION AS ORIGINALLY INTENDED.
 - 2. REMOVE SEDIMENT DEPOSITION WHICH REACHES ONE HALF THE HEIGHT OF THE CONTROL MEASURE. ALL SEDIMENT DEPOSITS SHALL BE CONSIDERED UNSUITABLE MATERIAL AND DISPOSED OF IN ACCORDANCE WITH NYSDOTSS §203-3.08, DISPOSAL OF SURPLUS EXCAVATED MATERIALS. MATERIAL SHALL BE DISPOSED OF AWAY FROM WETLANDS, WATER COURSES OR OTHER BODIES OF WATER.
- D. TORN OR PUNCTURED SILT FENCE FABRIC MAY BE REPAIRED BY THE PLACEMENT OF A PATCH, ON THE UPSTREAM SIDE, CONSISTING OF AN ADDITIONAL LAYER OF FABRIC OVER THE DAMAGED AREA, OR REPLACEMENT OF THE DAMAGED SECTION.
- E. WHERE EROSION CONTROL MATERIALS HAVE BEEN USED ON FINAL GRADE THAT HAVE BEEN PERMANENTLY SEEDED, THE CONTRACTOR SHALL CARE FOR THE AREAS UNTIL ACCEPTANCE OF THE CONTRACT OR ACCEPTANCE OF THE TURF, WHICHEVER IS LATER. WHERE NECESSARY, SUCH CARE MAY INCLUDE, BUT IS NOT LIMITED TO PROVIDING WARNING SIGNS OR BARRICADES FOR PROTECTION AGAINST TRAFFIC. ANY SURFACES THAT HAVE SETTLED BECOME GULLIED, OR OTHERWISE DAMAGED DUE TO THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT NO ADDITIONAL EXPENSE TO THE STATE TO REESTABLISH THE GRADE AND SOIL CONDITIONS THAT EXISTED PRIOR TO PLACING EROSION CONTROL MATERIALS.

3.3 TEMPORARY MULCH

- A. THE CONTRACTOR SHALL HAVE THE CAPABILITY TO MULCH ANY DISTURBED AREAS ON ANY GIVEN DAY (E.G., THOSE AREAS WHERE EARTHWORK OPERATIONS ARE ONGOING, ETC.). THE CONTRACTOR SHALL APPLY MULCH ON DISTURBED AREAS CONSISTENT WITH THE APPROVED PROJECT SCHEDULE.
- B. MULCH SHALL BE SPREAD UNIFORMLY IN A CONTINUOUS BLANKET AT AN APPROXIMATE RATE OF 4 T/HA. MULCH MAY BE SPREAD BY HAND, MECHANICAL SPREADERS, OR BLOWERS.

3.4 TEMPORARY SEED AND MULCH

- A. THE CONTRACTOR SHALL APPLY SEED AND MULCH ON DISTURBED AREAS CONSISTENT WITH THE APPROVED PROJECT SCHEDULE.
- B. PRIOR TO THE APPLICATION OF SEED, ALL AREAS WHERE COMPACTION HAS OCCURRED SHALL BE SCARIFIED. THE SEED BED SHALL BE LOOSE AND FRIBLABLE FOR POSITIVE SEED RETENTION.
- C. RYEGRASSES SHALL BE SPREAD AT A RATE OF 3.5 G/M² TO UNIFORMLY COVER THE GROUND. CEREAL GRASSES SHALL BE SPREAD AT A RATE OF 11.2 G/M² TO UNIFORMLY COVER THE GROUND. SEEDS SHALL BE EVENLY DISTRIBUTED BY ANY METHOD OF SOWING THAT DOES NOT INJURE THE SEEDS IN THE PROCESS OF SPREADING.
- D. MULCH SHALL BE SPREAD IMMEDIATELY FOLLOWING APPLICATION OF SEED. MULCH SHALL BE SPREAD UNIFORMLY IN A CONTINUOUS BLANKET AT AN APPROXIMATE RATE OF 4 T/HA. MULCH MAY BE SPREAD BY HAND, MECHANICAL SPREADERS, OR BLOWERS. MULCH AND SEED SHALL NOT BE PLACED SIMULTANEOUSLY, EXCEPT IN THE CASE OF HYDROSEEDING.

3.5 TEMPORARY SILT FENCE

- A. UNLESS OTHERWISE DETAILED IN THE CONTRACT DOCUMENTS, SILT FENCE SHALL BE INSTALLED AS FOLLOWS:
 - 1. POSTS SHALL BE DRIVEN INTO THE GROUND.
 - 2. GEOTEXTILE AND ANY MESH SUPPORT (IF APPLICABLE) SHALL BE PLACED ON THE UPSTREAM SIDE OF THE POSTS.
 - 3. THE GEOTEXTILE SHALL BE FASTENED TO EACH POST IN NO LESS THAN 4 LOCATIONS WITH APPROVED FASTENERS.
 - 4. THE MESH SUPPORT SHALL BE FASTENED TO EACH POST AT THE TOP, BOTTOM, AND TWO ADDITIONAL EVENLY SPACED LOCATIONS, OR BY A CONTINUOUS CORDED ATTACHMENT ALONG THE TOP OF THE ASSEMBLY.
 - 5. ANY GEOTEXTILE OR MESH SPlices NECESSARY FOR FENCE ERECTION SHALL BE CONTINUOUS BETWEEN TWO POST SECTIONS.
 - 6. GEOTEXTILE AT THE BOTTOM OF THE FENCE SHALL BE BURIED IN A TRENCH TO A DEPTH OF 150 MM. THE TRENCH SHALL BE BACK FILLED WITH THE EXCAVATED SOIL AND THE SOIL COMPACTED BY TAMPING.

3.6 DRAINAGE STRUCTURE INLET PROTECTION

- A. DRAINAGE STRUCTURE INLET PROTECTION SHALL BE PLACED WHERE SHOWN IN THE CONTRACT DOCUMENTS AND CONSTRUCTED IN ACCORDANCE WITH THE STANDARD DETAIL SHEETS.
- B. PLACING FILTER FABRIC beneath A DRAINAGE STRUCTURE GRATE OR WRAPPING A DRAINAGE STRUCTURE GRATE IN FILTER FABRIC IS NOT AN ACCEPTABLE INLET PROTECTION PRACTICE.

3.7 SOIL STABILIZERS

- A. THE TIME AND METHOD OF PLACEMENT SHALL BE AS SPECIFIED IN THE CONTRACT DOCUMENTS AND/OR ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. FOR AREAS AT FINAL GRADE, ALL LOOSE STONES, CLODS, STICKS, OR OTHER UNDESIRABLE MATERIAL SHALL BE REMOVED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS. IN ADDITION, THOSE AREAS AT FINAL GRADE SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 25 MM IMMEDIATELY PRIOR TO INSTALLATION, UNLESS TOPSOIL IS BEING PLACED AND THE EROSION CONTROL MATERIAL WILL BE INSTALLED WITHIN 2 WORKDAYS OF TOPSOIL PLACEMENT.
- B. CLASS IV SOIL STABILIZERS: THESE MATERIALS SHALL BE APPLIED AS RECOMMENDED BY THE MANUFACTURER. TYPES A AND B ARE INTENDED TO BE APPLIED WITH HYDROSEEDING EQUIPMENT. TYPE B MAY ALSO BE PLACED THROUGH DRY SPREADING. WHEN DRY SPREADING METHODS ARE USED, THE CONTRACTOR SHALL APPLY THE MATERIAL UNIFORMLY. WHERE APPLIED, TYPE A SHALL BE A MINIMUM OF 6 MM THICK. WHEN TYPE A IS USED IN CONJUNCTION WITH TURF ESTABLISHMENT, SEEDS MUST BE SOWN SEPARATELY AND PRIOR TO THE APPLICATION OF THE SOIL STABILIZER.

END OF EROSION AND SEDIMENT CONTROL SPECIFICATION

DEWATERING SPECIFICATION

PART 1 - GENERAL

1.1 SUMMARY

- A. SECTION INCLUDES CONSTRUCTION DEWATERING.

1.2 PREINSTALLATION MEETINGS

- A. PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE.

- 1. VERIFY AVAILABILITY OF INSTALLER'S PERSONNEL, EQUIPMENT, AND FACILITIES NEEDED TO MAKE PROGRESS AND AVOID DELAYS.
- 2. REVIEW CONDITION OF SITE TO BE DEWATERED INCLUDING COORDINATION WITH TEMPORARY EROSION-CONTROL MEASURES AND TEMPORARY CONTROLS AND PROTECTIONS.
- 3. REVIEW GEOTECHNICAL REPORT.
- 4. REVIEW PROPOSED SITE CLEARING AND EXCAVATIONS.
- 5. REVIEW EXISTING UTILITIES AND SUBSURFACE CONDITIONS.
- 6. REVIEW

STORMWATER CONVEYANCE AND STRUCTURES SPECIFICATION

PART 1 - GENERAL

1.1 SUMMARY

- A. SECTION INCLUDES:
 1. PE PIPE AND FITTINGS.
 2. NON-PRESSURE TRANSITION COUPLINGS.
 3. CATCH BASINS.

1.2 ACTION SUBMITTALS

- A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT.
- B. SHOP DRAWINGS:
 1. CATCH BASINS: INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS, FRAMES, COVERS, AND GRATES.

1.3 QUALITY ASSURANCE

- A. PIPING MATERIALS SHALL BEAR LABEL, STAMP, OR OTHER MARKINGS OF SPECIFIED TESTING AGENCY.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. DO NOT STORE PLASTIC PIPE, AND FITTINGS IN DIRECT SUNLIGHT.
- B. PROTECT PIPE, PIPE FITTINGS, AND SEALS FROM DIRT AND DAMAGE.
- C. HANDLE CATCH BASINS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RIGGING INSTRUCTIONS.

PART 2 - PRODUCTS

2.1 CORRUGATED PE PIPE AND FITTINGS

- A. SOURCE LIMITATIONS: OBTAIN CORRUGATED-PE PIPE AND FITTINGS FROM SINGLE MANUFACTURER.
- B. CORRUGATED-PE PIPE AND FITTINGS NPS 12 TO NPS 60: AASHTO M 294 OR ASTM F2648, TYPE S, WITH SMOOTH WATERWAY FOR COUPLING JOINTS.
- C. MATERIAL THAT MATES WITH PIPE AND FITTINGS.
- D. CORRUGATED-PE SOILTIGHT COUPLINGS: AASHTO M 294, CORRUGATED, MATCHING PIPE AND FITTINGS.

2.2 CONCRETE

- A. GENERAL: CAST-IN-PLACE CONCRETE IN ACCORDANCE WITH ACI 318, ACI 350, AND THE FOLLOWING:
 1. CEMENT: ASTM C150, TYPE II.
 2. FINE AGGREGATE: ASTM C33, SAND.
 3. COARSE AGGREGATE: ASTM C33, CRUSHED GRAVEL.
 4. WATER: POTABLE.
- B. PORTLAND CEMENT DESIGN MIX: 4000 PSI MINIMUM, WITH 0.45 MAXIMUM WATER/CEMENTITIOUS MATERIALS RATIO.
- C. REINFORCING FABRIC: ASTM A1064, STEEL, WELDED WIRE FABRIC, PLAIN.
- D. REINFORCING BARS: ASTM A615, GRADE 60 DEFORMED STEEL.

2.3 CATCH BASINS

- A. STANDARD PRECAST CONCRETE CATCH BASINS:
 1. DESCRIPTION: ASTM C478, PRECAST, REINFORCED CONCRETE, OF DEPTH INDICATED, WITH PROVISION FOR SEALANT JOINTS.
 2. BASE SECTION: 6-INCH MINIMUM THICKNESS FOR FLOOR SLAB AND 6-INCH MINIMUM THICKNESS FOR WALLS AND BASE RISER SECTION, AND SEPARATE BASE SLAB OR BASE SECTION WITH INTEGRAL FLOOR.
 3. RISER SECTIONS: 6-INCH MINIMUM THICKNESS, AND LENGTHS TO PROVIDE DEPTH INDICATED.
 4. JOINT SEALANT: ASTM C990, BITUMEN OR BUTYL RUBBER.
 5. ADJUSTING RINGS: INTERLOCKING RINGS WITH LEVEL OR SLOPED EDGE IN THICKNESS AND SHAPE MATCHING CATCH BASIN FRAME AND GRATE, INCLUDE SEALANT RECOMMENDED BY RING MANUFACTURER.
 6. GRADE RINGS: INCLUDE TWO OR THREE REINFORCED-CONCRETE RINGS, OF 6- TO 8-INCH TOTAL THICKNESS, THAT MATCH 24-INCH-SQUARE FRAME AND GRATE.
 7. STEPS: INDIVIDUAL FRP STEPS OR FRP LADDER, WIDE ENOUGH TO ALLOW WORKER TO PLACE BOTH FEET ON ONE STEP AND DESIGNED TO PREVENT LATERAL SLIPPAGE OFF STEP, CAST OR ANCHOR STEPS INTO SIDEWALLS AT 12- TO 16-INCH INTERVALS, OMIT STEPS IF TOTAL DEPTH FROM FLOOR OF CATCH BASIN TO FINISHED GRADE IS LESS THAN 6 INCHES.
 8. PIPE CONNECTORS: ASTM C923, RESILIENT, OF SIZE REQUIRED, FOR EACH PIPE CONNECTING TO BASE SECTION.
- B. DESIGNED PRECAST CONCRETE CATCH BASINS: ASTM C913, PRECAST, REINFORCED CONCRETE; DESIGNED IN ACCORDANCE WITH ASTM C890 FOR A-16 (AASHTO HS20-44), HEAVY-TRAFFIC, STRUCTURAL LOADING; OF DEPTH, SHAPE, AND DIMENSIONS INDICATED, WITH PROVISION FOR JOINT SEALANTS.
 1. JOINT SEALANTS: ASTM C990, BITUMEN OR BUTYL RUBBER.
 2. ADJUSTING RINGS: INTERLOCKING RINGS WITH LEVEL OR SLOPED EDGE IN THICKNESS AND SHAPE MATCHING CATCH BASIN FRAME AND GRATE, INCLUDE SEALANT RECOMMENDED BY RING MANUFACTURER.
 3. GRADE RINGS: INCLUDE TWO OR THREE REINFORCED-CONCRETE RINGS, OF 6- TO 8-INCH TOTAL THICKNESS, THAT MATCH 24-INCH-SQUARE FRAME AND GRATE.
 4. STEPS: INDIVIDUAL FRP STEPS OR FRP LADDER, WIDE ENOUGH TO ALLOW WORKER TO PLACE BOTH FEET ON ONE STEP AND DESIGNED TO PREVENT LATERAL SLIPPAGE OFF STEP, CAST OR ANCHOR STEPS INTO SIDEWALLS AT 12- TO 16-INCH INTERVALS, OMIT STEPS IF TOTAL DEPTH FROM FLOOR OF CATCH BASIN TO FINISHED GRADE IS LESS THAN 6 INCHES.
 5. PIPE CONNECTORS: ASTM C923, RESILIENT, OF SIZE REQUIRED, FOR EACH PIPE CONNECTING TO BASE SECTION.
- C. FRAMES AND GRATES: ASTM A536, GRADE 60-40-18, DUCTILE IRON DESIGNED FOR A-16 (AASHTO HS20-44), STRUCTURAL LOADING, INCLUDE FLAT GRATE WITH SMALL SQUARE OR SHORT-SLOTTED DRAINAGE OPENINGS.
 1. SIZE: 24 BY 24 INCHES MINIMUM UNLESS OTHERWISE INDICATED.
 2. GRATE FREE AREA: APPROXIMATELY 50 PERCENT UNLESS OTHERWISE INDICATED.

PART 3 - EXECUTION

3.1 EARTHWORK

- A. EXCAVATION, TRENCHING, AND BACKFILLING ARE SPECIFIED ON G003 OF THE CONTRACT PLANS.

3.2 PIPING INSTALLATION

- A. GENERAL LOCATIONS AND ARRANGEMENTS: DRAWING PLANS AND DETAILS INDICATE GENERAL LOCATION AND ARRANGEMENT OF UNDERGROUND STORM DRAINAGE PIPING, LOCATION AND ARRANGEMENT OF PIPING LAYOUT TAKE INTO ACCOUNT DESIGN CONSIDERATIONS. INSTALL PIPING AS INDICATED, TO EXTENT PRACTICAL, WHERE SPECIFIC INSTALLATION IS NOT INDICATED, FOLLOW PIPING MANUFACTURER'S WRITTEN INSTRUCTIONS.
- B. INSTALL PIPING BEGINNING AT LOW POINT, TRUE TO GRADES AND ALIGNMENT INDICATED WITH UNBROKEN CONTINUITY OF INVERT, PLACE BELL ENDS OF PIPING FACING UPSTREAM, INSTALL GASKETS, SEALS, SLEEVES, AND COUPLINGS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS FOR USE OF LUBRICANTS, CEMENTS, AND OTHER INSTALLATION REQUIREMENTS.
- C. REDUCING SIZE OF PIPING IN DIRECTION OF FLOW IS PROHIBITED.
- D. INSTALL GRAVITY-FLOW, NONPRESSURE DRAINAGE PIPING IN ACCORDANCE WITH THE FOLLOWING:
 1. INSTALL PIPING PITCHED DOWN IN DIRECTION OF FLOW.
 2. INSTALL PIPING NPS 6 AND LARGER WITH RESTRAINED JOINTS AT TEE FITTINGS AND AT CHANGES IN DIRECTION, USE CORROSION-RESISTANT RODS, PIPE OR FITTING MANUFACTURER'S PROPRIETARY RESTRAINT SYSTEM, OR CAST-IN-PLACE CONCRETE SUPPORTS OR ANCHORS.
 3. INSTALL PE CORRUGATED SEWER PIPING IN ACCORDANCE WITH ASTM D2321.
 4. INSTALL PE CORRUGATED SEWER PIPING IN ACCORDANCE WITH ASTM D2321.

3.3 PIPE JOINT CONSTRUCTION

- A. JOIN GRAVITY-FLOW, NONPRESSURE DRAINAGE PIPING IN ACCORDANCE WITH THE FOLLOWING:
 1. JOIN CORRUGATED-PE PIPING IN ACCORDANCE WITH ASTM D3212 FOR PUSH-ON JOINTS.

3.4 CATCH BASIN INSTALLATION

- A. CONSTRUCT CATCH BASINS TO SIZES AND SHAPES INDICATED.
- B. SET FRAMES AND GRATES TO ELEVATIONS INDICATED.

3.5 CONCRETE PLACEMENT

- A. PLACE CAST-IN-PLACE CONCRETE IN ACCORDANCE WITH ACI 318.

3.6 CONNECTIONS

- A. PIPE COUPLINGS, EXPANSION JOINTS, AND DEFLECTION FITTINGS WITH PRESSURE RATINGS AT LEAST EQUAL TO PIPING RATING MAY BE USED IN APPLICATIONS BELOW UNLESS OTHERWISE INDICATED.
 1. USE NONPRESSURE-TYPE FLEXIBLE COUPLINGS WHERE REQUIRED TO JOIN GRAVITY-FLOW, NONPRESSURE SEWER PIPING UNLESS OTHERWISE INDICATED.

- a. UNSHIELDED FLEXIBLE COUPLINGS FOR SAME OR MINOR DIFFERENCE OD PIPES.
- b. UNSHIELDED, INCREASE/REDUCER-PATTERN, FLEXIBLE COUPLINGS FOR PIPES WITH DIFFERENT OD.
- c. RING-TYPE FLEXIBLE COUPLINGS FOR PIPING OF DIFFERENT SIZES WHERE ANNUAL SPACE BETWEEN SMALLER PIPING'S OD AND LARGER PIPING'S ID PERMITS INSTALLATION.

3.7 FIELD QUALITY CONTROL

- A. INSPECT INTERIOR OF PIPING TO DETERMINE WHETHER LINE DISPLACEMENT OR OTHER DAMAGE HAS OCCURRED. INSPECT AFTER APPROXIMATELY 24 INCHES OF BACKFILL IS IN PLACE, AND AGAIN AT COMPLETION OF PROJECT.
 1. SUBMIT SEPARATE REPORTS FOR EACH SYSTEM INSPECTION.
 2. DEFECTS REQUIRING CORRECTION INCLUDE THE FOLLOWING:
 - a. ALIGNMENT: LESS THAN FULL DIAMETER OF INSIDE OF PIPE IS VISIBLE BETWEEN STRUCTURES.
 - b. DEFLECTION: FLEXIBLE PIPING WITH DEFLECTION THAT PREVENTS PASSAGE OF BALL OR CYLINDER OF SIZE NOT LESS THAN 92.5 PERCENT OF PIPING DIAMETER.
 - c. DAMAGE: CRUSHED, BROKEN, CRACKED, OR OTHERWISE DAMAGED PIPING.
 - d. INFILTRATION: WATER LEAKAGE INTO PIPING.
 - e. EXFILTRATION: WATER LEAKAGE FROM OR AROUND PIPING.
 3. REPLACE DEFECTIVE PIPING USING NEW MATERIALS, AND REPEAT INSPECTIONS UNTIL DEFECTS ARE WITHIN ALLOWANCES SPECIFIED.
 4. REINSPPECT AND REPEAT PROCEDURE UNTIL RESULTS ARE SATISFACTORY.
- B. TEST NEW PIPING SYSTEMS, AND PARTS OF EXISTING SYSTEMS THAT HAVE BEEN ALTERED, EXTENDED, OR REPAIRED, FOR LEAKS AND DEFECTS.
 1. DO NOT ENCLOSE COVER, OR PUT INTO SERVICE BEFORE INSPECTION AND APPROVAL.
 2. TEST COMPLETED PIPING SYSTEMS IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
 3. SCHEDULE TESTS AND INSPECTIONS BY AUTHORITIES HAVING JURISDICTION WITH AT LEAST 24 HOURS' ADVANCE NOTICE.
 4. SUBMIT SEPARATE REPORT FOR EACH TEST.
 5. GRAVITY-FLOW STORM DRAINAGE PIPING: TEST IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION, UNH-B-6, AND THE FOLLOWING:
 - a. EXCEPTION: PIPING WITH SOILTIGHT JOINTS UNLESS REQUIRED BY AUTHORITIES HAVING JURISDICTION.
 - b. OPTION: TEST PLASTIC PIPING IN ACCORDANCE WITH ASTM F1417.
 6. LEAKS AND LOSS IN TEST PRESSURE CONSTITUTE DEFECTS THAT MUST BE REPAIRED.
 7. REPLACE LEAKING PIPING USING NEW MATERIALS, AND REPEAT TESTING UNTIL LEAKAGE IS WITHIN ALLOWANCES SPECIFIED.

3.8 CLEANING

- A. CLEAN INTERIOR OF PIPING AND STRUCTURES OF DIRT AND SUPERFLUOUS MATERIALS.

END OF STORMWATER CONVEYANCE AND STRUCTURES SPECIFICATION

LANDSCAPE WORK SPECIFICATION

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS WHICH APPLY TO WORK SPECIFIED IN THIS SECTION.

1.2 DESCRIPTION OF WORK

- A. SUBGRADE ELEVATIONS: EXCAVATION, FILLING AND GRADING REQUIRED TO ESTABLISH ELEVATIONS ARE NOT SPECIFIED IN THIS SECTION.
- B. SECTION INCLUDES:
 1. PLANTING SOIL
 2. SEEDING
 3. HYDROSEEDING
 4. TURF RENOVATION
- C. REFERENCE STANDARDS
 1. ASTM C602 - STANDARD SPECIFICATION FOR AGRICULTURAL LIMING MATERIALS.
- D. QUALITY ASSURANCE
 1. SEEDING WORK IS TO BE PERFORMED BY A CONTRACTING FIRM OR FIRMS SPECIALIZING IN LANDSCAPE AND SEEDING WORK. CONTRACTOR MUST SUBMIT PROOF TO THE TOWN ENGINEER THAT THEY MEET THE FOLLOWING EXPERIENCE REQUIREMENTS:
 1. SUCCESSFULLY COMPLETED A CONTRACT OF SIMILAR WORK IN AN AMOUNT OF NOT LESS THAN FIFTY PERCENT OF THE AMOUNT OF THE PROPOSED CONTRACT WITHIN THE LAST 5 YEARS.
 2. SEVENTY-FIVE PERCENT OF ALL THE CONTRACTOR'S WORK IN THE LAST 3 YEARS MUST HAVE CONSISTED OF CONTRACTS IN WHICH A MAJORITY PERCENTAGE OF THE CONTRACT SUM WAS FOR THE INSTALLATION OF PLANT MATERIAL. LIST MUST INCLUDE OWNER'S NAME, PROJECT SITE, AND CONTRACT AMOUNT.
 3. INSTALLER'S FIELD SUPERVISION: REQUIRE INSTALLER TO MAINTAIN AN EXPERIENCED FULL-TIME SUPERVISOR ON PROJECT SITE WHEN WORK IS IN PROGRESS.
 4. PESTICIDE APPLICATOR: STATE LICENSED, COMMERCIAL.

1.5 SUBMITTALS

- A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT.
- B. CERTIFICATION OF GRASS SEED: FROM SEED VENDOR FOR EACH GRASS-SEED MONOSTAND OR MIXTURE, STATING THE BOTANICAL AND COMMON NAME, PERCENTAGE BY WEIGHT OF EACH SPECIES AND VARIETY, AND PERCENTAGE OF PURITY, GERMINATION, AND WEED SEED, INCLUDE THE YEAR OF PRODUCTION AND DATE OF PACKAGING.
- C. PRODUCT CERTIFICATES: FOR FERTILIZERS, FROM MANUFACTURER.
- D. PESTICIDES AND HERBICIDES: PRODUCT LABEL AND MANUFACTURER'S APPLICATION INSTRUCTIONS SPECIFIC TO PROJECT.
- E. SCHEDULE: SUBMIT SCHEDULE SHOWING SCHEDULED DATES FOR SEEDING IN EACH AREA OF SITE, ONCE ACCEPTED, REVISE DATES ONLY AS ACCEPTED IN WRITING BY THE TOWN ENGINEER, AFTER DOCUMENTATION OF REASONS FOR DELAY.
- F. OFF-SITE TOPSOIL: BEFORE DELIVERY OF TOPSOIL FROM OFF-SITE SOURCES, FURNISH TOWN ENGINEER WITH WRITTEN STATEMENT GIVING LOCATION OF PROPERTIES FROM WHICH TOPSOIL IS TO BE OBTAINED, NAMES AND ADDRESSES OF OWNERS, DEPTH TO BE STRIPPED, AND CROPS GROWN DURING THE PAST 2 YEARS.
- G. PRODUCT DELIVERY, STORAGE AND HANDLING
 1. PACKAGED MATERIALS: DELIVER PACKAGED MATERIALS IN ORIGINAL, UNOPENED CONTAINERS SHOWING WEIGHT, CERTIFIED ANALYSIS, NAME AND ADDRESS OF MANUFACTURER, AND COMPLIANCE WITH STATE AND FEDERAL LAWS IF APPLICABLE.
 2. BULK MATERIALS:
 1. DO NOT DUMP OR STORE BULK MATERIALS NEAR STRUCTURES, UTILITIES, WALKWAYS AND PAVEMENTS, OR ON EXISTING TURF AREAS OR PLANTS.
 2. PROVIDE EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF BULK MATERIALS. DISCHARGE OF SOIL-BEARING WATER RUNOFF, AND AIRBORNE DUST REACHING ADJACENT PROPERTIES, WATER CONVEYANCE SYSTEMS, OR WALKWAYS.
 3. DO NOT MOVE OR HANDLE MATERIALS WHEN THEY ARE WET OR FROZEN.
 4. ACCOMPANY EACH DELIVERY OF BULK FERTILIZERS AND SOIL AMENDMENTS WITH APPROPRIATE CERTIFICATES
- H. JOB CONDITIONS
 1. DETERMINE LOCATION OF UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER WHICH WILL AVOID POSSIBLE DAMAGE. HAND EXCAVATE, AS REQUIRED, MAINTAIN GRADE STAKES SET BY OTHERS UNTIL REMOVAL IS APPROVED BY PARTIES CONCERNED.
 2. DO NOT DAMAGE PREVIOUSLY INSTALLED TREES AND SHRUBS.
 3. OBSERVE PRECAUTIONARY MEASURES TO PROTECT EXISTING PAVED AREAS AGAINST DAMAGE DURING THE PLANTING OPERATION.
 4. WORK NOTIFICATION: NOTIFY TOWN ENGINEER AT LEAST 48 HOURS IN ADVANCE OF THE TIME CONTRACTOR INTENDS TO SET, AND DO NOT PROCEED WITH SUCH WORK UNTIL PERMISSION HAS BEEN GRANTED.
 5. PERFORM SEEDING WORK ONLY AFTER OTHER WORK AFFECTING GROUND SURFACE HAS BEEN COMPLETED.
 6. SEEDING SHALL TAKE PLACE DURING NORMAL PLANTING SEASONS AS ESTABLISHED BELOW. ACTUAL WEATHER CONDITIONS AND SEASONAL VARIATIONS WILL DETERMINE WHEN SEEDING IS WARRANTED.
 1. TIME OF SEEDING
 - a. SEEDING OPERATIONS SHALL NOT OCCUR AT A TIME WHEN THE SOIL OR BACKFILL IS FROZEN OR THE

1.7 JOB CONDITIONS

- A. DETERMINE LOCATION OF UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER WHICH WILL AVOID POSSIBLE DAMAGE. HAND EXCAVATE, AS REQUIRED, MAINTAIN GRADE STAKES SET BY OTHERS UNTIL REMOVAL IS APPROVED BY PARTIES CONCERNED.
- B. DO NOT DAMAGE PREVIOUSLY INSTALLED TREES AND SHRUBS.
- C. OBSERVE PRECAUTIONARY MEASURES TO PROTECT EXISTING PAVED AREAS AGAINST DAMAGE DURING THE PLANTING OPERATION.
- D. WORK NOTIFICATION: NOTIFY TOWN ENGINEER AT LEAST 48 HOURS IN ADVANCE OF THE TIME CONTRACTOR INTENDS TO SET, AND DO NOT PROCEED WITH SUCH WORK UNTIL PERMISSION HAS BEEN GRANTED.
- E. PERFORM SEEDING WORK ONLY AFTER OTHER WORK AFFECTING GROUND SURFACE HAS BEEN COMPLETED.
- F. SEEDING SHALL TAKE PLACE DURING NORMAL PLANTING SEASONS AS ESTABLISHED BELOW. ACTUAL WEATHER CONDITIONS AND SEASONAL VARIATIONS WILL DETERMINE WHEN SEEDING IS WARRANTED.
 1. TIME OF SEEDING
 - a. SEEDING OPERATIONS SHALL NOT OCCUR AT A TIME WHEN THE SOIL OR BACKFILL IS FROZEN OR THE

SOIL IS SATURATED.

- B. SEEDING SEASONS SHALL BE APRIL 1ST TO JUNE 6TH AND AUGUST 20TH TO OCTOBER 31ST.
- C. WHEN DELAYS IN OPERATIONS CARRY THE WORK BEYOND THE SEASONS SPECIFIED, OR WHEN CONDITIONS OF HIGH WINDS (WINDS THAT EXCEED 5 MPH VELOCITY), DROUGHT, EXCESSIVE MOISTURE OR ICE ARE SUCH THAT SATISFACTORY RESULTS ARE NOT LIKELY TO BE OBTAINED AT ANY STAGE OF THE WORK, THE WORK WILL STOP. SEEDING WORK SHALL BE RESUMED ONLY WHEN THE DESIRED RESULTS ARE LIKELY TO BE OBTAINED OR WHEN THE OWNER AND/OR TOWN ENGINEER ACCEPTS A CORRECTIVE MEASURE AND PROCEDURE.
- D. DORMANT SEEDING MAY TAKE PLACE AFTER NOVEMBER 15, BUT PRIOR TO CONTINUOUS SOIL FREEZE. SUCCESS OF DORMANT SEEDING DETERMINED AT TOWN ENGINEER'S DISCRETION.
- E. SOIL CONDITIONS SHALL PREVAIL WHEN THE TIME OF PLANTING IS IN DISPUTE.
- F. RESTRICT TRAFFIC FROM LAWN AREAS UNTIL GRASS IS ESTABLISHED. ERECT SIGNS AND BARRIERS AS REQUIRED.

1.8 SPECIAL PROJECT WARRANTY

- A. WARRANTY LAWNS THROUGH SPECIFIED MAINTENANCE PERIOD, AND UNTIL FINAL ACCEPTANCE.
- B. THE CONTRACTOR AT HIS EXPENSE THROUGH THE USE OF FENCES, BARRICADES, OR OTHER PHYSICAL BARRIERS SHALL PROTECT NEWLY SEDED AREAS FROM FOOT TRAFFIC OR VEHICULAR TRESPASS. CONTRACTOR SHALL MONITOR, REPAIR, OR REPLACE BARRIERS AS NECESSARY OR AS REQUIRED BY THE TOWN ENGINEER.
- C. THE CONTRACTOR SHALL REPLACE DISPLACED MULCH, REMOVE ERODED TOPSOIL AND ADJUST OR REPLACE DISTURBED SEDED AREAS.

PART 2 PRODUCTS

2.1 TOPSOIL

- A. EXISTING OR IMPORTED TOPSOIL SHALL BE FERTILE, FRIBLABLE SOIL CONTAINING LESS THAN 10 PERCENT TOTAL VOLUME OF THE COMBINATION OF SUBSOIL, REFUSE, ROOTS LARGER THAN 1 INCH DIAMETER, HEAVY, STICKY OR STIFF CLAY, STONES LARGER THAN 2 INCHES IN ANY DIMENSION. TOPSOIL SHALL BE SUITABLE FOR THE GERMINATION OF SEEDS AND THE SUPPORT