

TOWN OF ASHLAND, MASSACHUSETTS

WEST UNION STREET

SIDEWALK IMPROVEMENT PROJECT

APRIL 11, 2024

TOWN OF ASHLAND

TOWN OF ASHLAND
 20 PONDEROSA ROAD
 ASHLAND, MA 01721
 PHONE: (508) 881-0120

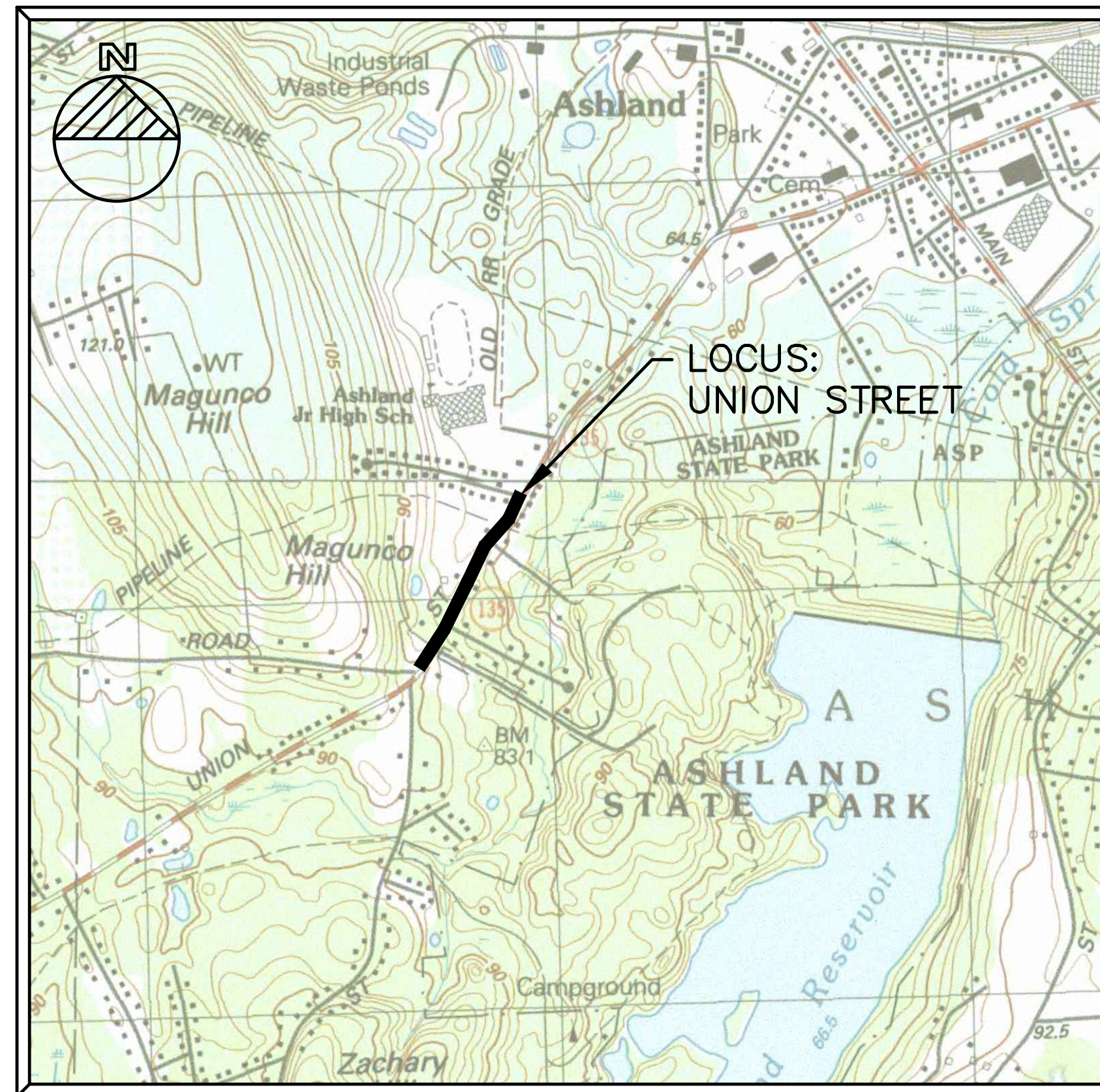
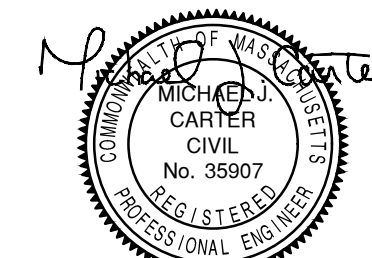


IMAGE OBTAINED FROM: "OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MASSGIS), COMMONWEALTH OF MASSACHUSETTS"

LOCUS PLAN
 SCALE : 1" = 1,000'±



4/11/24

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GENERAL NOTES

- PLAN AND TOPOGRAPHIC INFORMATION ARE PREPARED FROM AN ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY GCG ASSOCIATES, INC. IN SEPTEMBER 2023.
- ELEVATIONS, IN FEET, REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AS DEFINED BY MASSACHUSETTS GEODETIC SURVEY.
- BUILDING LOCATIONS AS SHOWN ON ADJACENT PROPERTIES, ARE APPROXIMATE AND FOR REFERENCE PURPOSES ONLY.
- ALL LOCATIONS OF SUBSURFACE UTILITIES AND STRUCTURES WERE OBTAINED FROM AVAILABLE TOWN AND UTILITY RECORDS. THE SIZE, TYPE AND LOCATION OF UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL PROPERLY LOCATE THE UTILITIES PRIOR TO THE BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN UTILITY INFORMATION BY CONTACTING DIGSAFE: (811). THE CONTRACTOR SHALL EXCAVATE TEST PITS TO VERIFY UTILITY LINES.
- WATER MAINS ARE ASSUMED TO BE 5 FEET BELOW THE EXISTING GROUND SURFACE. GAS LINES ARE ASSUMED TO BE 3 FEET BELOW THE EXISTING GROUND SURFACE. TELEPHONE AND ELECTRIC CONDUIT ARE ASSUMED TO BE 2 FEET BELOW THE EXISTING GROUND SURFACE.
- PRIOR TO THE PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND TOWN WITH A CONSTRUCTION SCHEDULE DELINEATING THE SEQUENCE OF WORK, A TRAFFIC MANAGEMENT PLAN AND ESTIMATED TIME OF COMPLETION FOR EACH SEGMENT OF WORK.
- THE TRAFFIC MANAGEMENT PLAN, TO BE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER TO BE PROVIDED BY THE CONTRACTOR, SHALL BE SUBMITTED FOR TOWN REVIEW AND SHALL BE IN COMPLIANCE WITH MASSDOT AND MUTCD. SAID PLAN WILL SHOW HOW TRAFFIC FLOW WILL BE HANDLED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL MAINTAIN CONTINUOUS TRAFFIC FLOW DURING CONSTRUCTION SATISFACTORY TO THE ENGINEER AND THE TOWN OF ASHLAND. WORK ON TOWN ROADWAYS SHALL OCCUR BETWEEN THE HOURS OF 7:00 A.M. AND 5:00 P.M. NIGHT WORK MAY BE SCHEDULED AT THE DISCRETION OF THE TOWN OF ASHLAND BETWEEN THE HOURS OF 8:00 P.M. AND 5:00 A.M.
- ACCESS TO ALL EXISTING PARKING LOTS AND BUILDINGS SHALL BE MAINTAINED AT ALL TIMES DURING THE COURSE OF CONSTRUCTION BY THE CONTRACTOR.
- ALL CONSTRUCTION SIGNING SHALL CONFORM TO THE REQUIREMENTS OF THE STATE OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASSDOT) AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES AND PROCEDURES, AND FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH ALL WORK INCLUDED UNDER THIS CONTRACT. THE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL SAFETY BARRIERS, WARNING FLASHERS AND THE LIKE, AS REQUIRED BY THE CONDUCT OF THE WORK FOR THE PROTECTION OF WORKERS AND NON-WORKERS ALIKE. THE CONTRACTORS ATTENTION IS DIRECTED TO OSHA REQUIREMENTS.
- TRENCH DEWATERING COSTS THROUGHOUT THE DURATION OF THE PROPOSED PROJECT SHALL BE INCLUDED IN THE APPLICABLE BID ITEM. TRENCH DEWATERING PLAN SHALL BE SUBMITTED TO THE TOWN ENGINEER FOR APPROVAL.
- ALL CONSTRUCTION MATERIAL, DEBRIS, ASPHALT, SOIL, ETC. THAT IS REMOVED FROM THE SITE SHALL BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SITE RESTORATION AND CLEAN UP UPON COMPLETION OF THE PROJECT. DURING THE COURSE OF CONSTRUCTION, ANY DAMAGE BY THE CONTRACTOR TO FENCES, GUARDRAILS, PATHS, STAIRS, PAVEMENT, LANDSCAPING OR VEGETATION SHALL BE REPAIRED OR REPLACED AND RESTORED TO ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE CONTRACT. ANY REPLACEMENT FENCE AND/OR HANDRAILS SHALL MATCH EXISTING.
- ALL CASTINGS, GATE BOXES, HYDRANTS, LIGHT POLES, ETC. DAMAGED DURING CONSTRUCTION SHALL BE SUPPLIED AND REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.
- THE CONTRACTOR SHALL REMOVE AND REPLACE OR SUPPORT UTILITY POLES WITHIN 10 FEET OF THE PROPOSED UTILITY PIPE CENTERLINE OR AS DIRECTED BY THE ENGINEER.
- POLICE DETAILS SHALL BE COORDINATED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING ANY DEBRIS, SEDIMENT OR SILTY WATER FROM ENTERING ANY DRAINAGE SYSTEM, ETC. DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR WILL INSTALL ALL TEMPORARY CATCH BASIN SILT SACKS AS REQUIRED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL EXCAVATE TEST PITS AS REQUIRED BY THE ENGINEER TO DETERMINE THE LOCATION OF THE EXISTING UTILITIES AND DETERMINE IF DESIGN CHANGES MAY BE NECESSARY PRIOR TO ORDERING ALL DRAINAGE STRUCTURES FOR THE WORK. THE TEST PIT LOCATIONS ARE AS SHOWN ON THE PLAN AND DETERMINE BY THE ENGINEER. ADDITIONAL TEST PITS MAY BE REQUIRED AT THE TIME OF CONSTRUCTION DUE TO DIGSAFE MARK OUTS.

SITE EROSION & SEDIMENT CONTROL NOTES

- THE CONTRACTOR SHALL COMPLY WITH EROSION AND SEDIMENTATION CONTROL DETAILS AND NOTES AS SHOWN ON PLAN.
- STRAW EROSION AND SEDIMENT CONTROL BARRIER SHALL BE PLACED AT DOWNSTREAM PROJECT LIMITS PRIOR TO THE COMMENCEMENT OF WORK. WATTLES SHALL BE INSPECTED DAILY AND CLEANED OR REPAIRED AS NEEDED DURING CONSTRUCTION PERIOD.
- CONSTRUCTION PERIOD SILT SACKS SHALL BE USED AT ALL CATCH BASINS. SILT SACKS SHALL BE KEPT FREE OF SEDIMENT AND DEBRIS, INSPECTED WEEKLY AND REPAIRED PROMPTLY.

FINE GRADING AND COMPACTING

- THE CONTRACTOR SHALL FINE GRADE AND COMPACT ALL AREAS IN PREPARATION FOR PAVEMENT, INCLUDING, BUT NOT LIMITED TO THE DRIVEWAY AREAS AND TRANSITION DRIVEWAY AREAS. THE CONTRACTOR SHALL ALSO STRAIGHT CUT ALL EXISTING JOINTS AND EDGES IN PREPARATION FOR FINAL PAVEMENT.
- PAYMENT FOR GRADING AND COMPACTING THE RECONSTRUCTED SIDEWALK SHALL BE INCLUDED IN THE ASSOCIATED ITEM.
- PAYMENT FOR FINE GRADING AND COMPACTING THE RECONSTRUCTED DRIVEWAY AND PARKING AREAS SHALL BE INCLUDED IN THE ASSOCIATED ITEM.

CATCH BASIN AND DRAINAGE CLEANING NOTES

- ALL ON-SITE CATCH BASINS AND PIPES SHALL BE CLEANED UPON COMPLETION OF WORK. ALL ACCUMULATED SEDIMENT, DEBRIS, ORGANIC MATTER, ETC. SHOULD BE REMOVED FROM CATCH BASINS AND DRAINAGE SYSTEMS.
- ALL SEDIMENT AND DEBRIS REMOVED FROM THE CATCH BASIN OR PIPE LINE SHALL BE PROPERLY HANDLED AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL GUIDELINES AND REGULATIONS.
- ANY REQUIRED MAINTENANCE OR REPAIRS NOTED DURING CLEANING SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER IMMEDIATELY.

SIDEWALK NOTES

- CONSTRUCTION OF SIDEWALKS SHALL BE IN ACCORDANCE WITH THE TYPICAL CROSS SECTION DETAILS.
- A MINIMUM SIDEWALK WIDTH OF 5' MUST BE MAINTAINED. MATCH EXISTING SIDEWALK WIDTHS WHERE WIDTH IS GREATER THAN 5'.
- HOT MIX ASPHALT (HMA)/BITUMINOUS CONCRETE SIDEWALKS SHALL HAVE A MINIMUM 3" DEPTH CONSISTING OF A 2" BASE COURSE AND A 1-1/2" SURFACE COURSE.
- CONTRACTOR SHALL REMOVE & REPLACE THE ENTIRE WIDTH OF EXISTING BITUMINOUS CONCRETE PAVEMENT OR TOPSOIL & SUBSOIL AND SHALL PROVIDE, AN 8" MINIMUM DEPTH OF GRAVEL BASE AND 2-1/2" MINIMUM DEPTH OF HMA/BITUMINOUS CONCRETE SIDEWALK AS SHOWN ON THE TYPICAL SIDEWALK CROSS SECTIONS AND DETAIL. EXCAVATION AND BACKFILL SUPPLEMENTAL GRAVEL AS NEEDED, PAVING AND DISPOSAL OF SURPLUS MATERIAL SHALL BE INCLUDED IN THE ASSOCIATED ITEM.
- THE CONTRACTOR SHALL COMPACT AND FINE GRADE GRAVEL SUBBASE AS SPECIFIED. ALL SUBBASE MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% OF THE STANDARD PROCTOR DENSITY.
- ALL PROPOSED CUTS AND FILLS REQUIRED TO GRADE THE PAVEMENT MATERIAL TO THE REQUIRED DEPTH SHALL BE INCLUDED FOR PAYMENT IN THE ASSOCIATED ITEM.
- THE CONTRACTOR SHALL FINE GRADE THE GRAVEL SUBBASE NO MORE THAN 24 HOURS PRIOR TO THE PLACEMENT OF THE BASE COURSE PAVEMENT.
- ANY STRUCTURES OR GATE BOXES IN SIDEWALKS SHALL BE RESET TO FINISHED GRADE AS PART OF THE ASSOCIATED ITEM.
- EXISTING WALKWAYS, DRIVEWAYS, ETC. SHALL BE SAW CUT IN AREAS WHERE THEY MEET A NEW CONCRETE SIDEWALK OR DRIVEWAY IN ORDER TO CREATE A CLEAN JOINT THAT WILL PROVIDE A SMOOTH TRANSITION BETWEEN THE NEW AND OLD SURFACES.
- ANY WORK AND MATERIALS REQUIRED TO TIE THE BACK OF SIDEWALK INTO EXISTING GRADES OR STRUCTURES SHALL BE INCLUDED IN THE ASSOCIATED WORK ITEM.
- THE WHEELCHAIR RAMP SLOPES AND SIDE SLOPES (TRANSITIONS) WILL BE 7.5' WITH A CONSTRUCTION TOLERANCE OF ±0.5%. HOWEVER, THESE SLOPES MAY BE FLATTER WHEN WARRANTED BY SURROUNDING CONDITIONS.
- THE ENTRANCE OF WHEELCHAIR RAMPS SHALL BE FLUSH WITH THE ROADWAY.

GENERAL PAVING NOTES: ROADWAY AND SIDEWALKS

- THE CONTRACTOR SHALL SAW CUT ALL JOINTS IN THE EXISTING PAVEMENT AREAS WHERE THE PROPOSED PAVEMENT WILL MEET EXISTING PAVEMENT TO REMAIN. ALL JOINTS SHALL PROVIDE A SMOOTH TRANSITION BETWEEN NEW AND OLD PAVEMENTS. IMMEDIATELY AFTER PAVING, ALL JOINTS SHALL BE SANDED AND SEALED. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE ASSOCIATED ITEM.
- THE CONTRACTOR SHALL RESET ALL WATER, SEWER, GAS, ELECTRIC, TELEPHONE AND DRAINAGE FRAMES AND GRATES AND ANY OTHER STRUCTURES, SIGNS, ETC. NECESSARY TO INSTALL THE PROPOSED PAVEMENT TO THE PROPOSED FINISH GRADE ELEVATION. THIS WORK SHALL BE INCLUDED IN THE ASSOCIATED ITEM. ALL WORK REQUIRED TO LOWER, RAISE, AND EXTEND THE EXISTING CASTINGS & VALVE BOXES TO THE PROPOSED FINISH GRADE SHALL BE INCLUDED FOR PAYMENT UNDER THE ASSOCIATED ITEM.
- THE CONTRACTOR SHALL BE PAID FOR WORK REQUIRED TO SUPPORT OR REMOVE AND REPLACE EXISTING STRUCTURES AND UTILITY LINES ADJACENT TO OR WITHIN THE LIMITS OF WORK UNDER THE LUMP SUM ASSOCIATED ITEM.
- ALL NEW PAVEMENT STRIPING SHALL BE 6" AND 12" WIDE PAINTED LINES TO MATCH EXISTING COLOR ON SITE.

STOCKPILED MATERIALS AND EQUIPMENT

- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING A LOCATION FOR STAGING AND STORING STOCKPILED MATERIALS.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF LOCATION AND ANY PRIVATE AGREEMENTS AND ALL FEES THAT MAY BE ASSOCIATED WITH THE USE OF AN AREA FOR STORING STOCKPILED MATERIALS.
- THE TOWN OF ASHLAND IS NOT RESPONSIBLE FOR PROVIDING A LOCATION FOR STAGING OR THE STORAGE OF STOCKPILED MATERIALS.
- MATERIALS SHALL NOT BE STOCKPILED ON THE ROAD OR IN PUBLIC PARKING AREAS.
- NO EQUIPMENT SHALL BE ALLOWED TO BE PARKED ON THE ROAD WHEN NOT IN USE.
- ALL SURPLUS EXCAVATED MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DISPOSE OF OFFSITE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

CONSTRUCTION NOTES

**WEST UNION STREET
SIDEWALK IMPROVEMENT PROJECT
ASHLAND, MASSACHUSETTS**

GCG ASSOCIATES, INC.

WILMINGTON

MASSACHUSETTS

SCALE: 1" = 20'

DATE: APRIL 11, 2024

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DESIGNED BY: R.S.T.

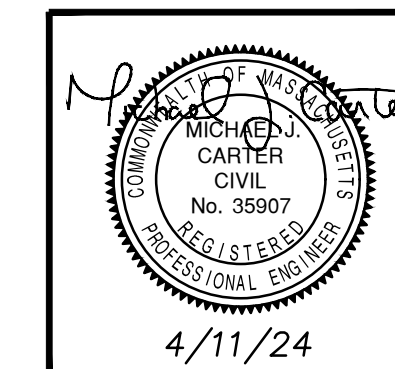
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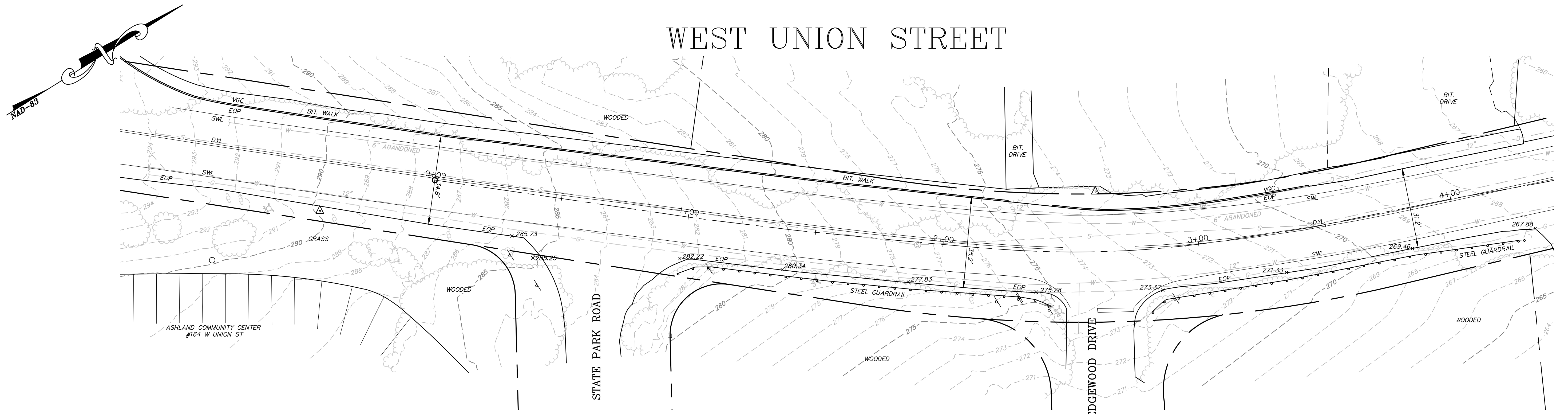
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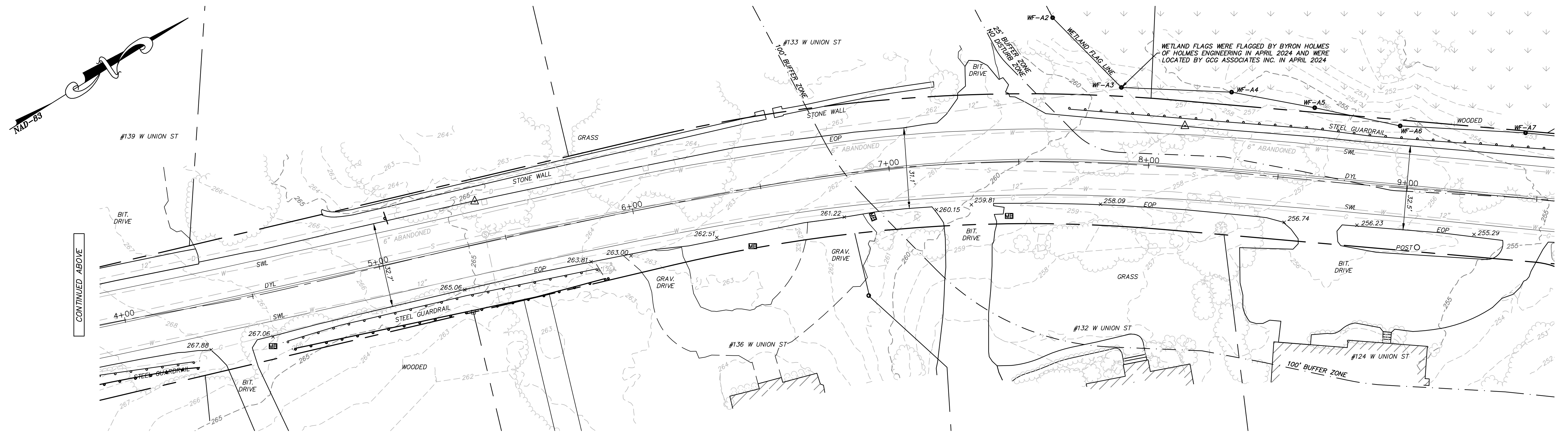
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WEST UNION STREET



PLAN
SCALE: 1" = 20'

WEST UNION STREET



PLAN
SCALE: 1" = 20'

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EXISTING CONDITIONS PLAN

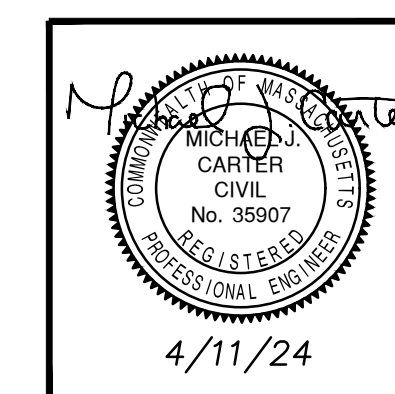
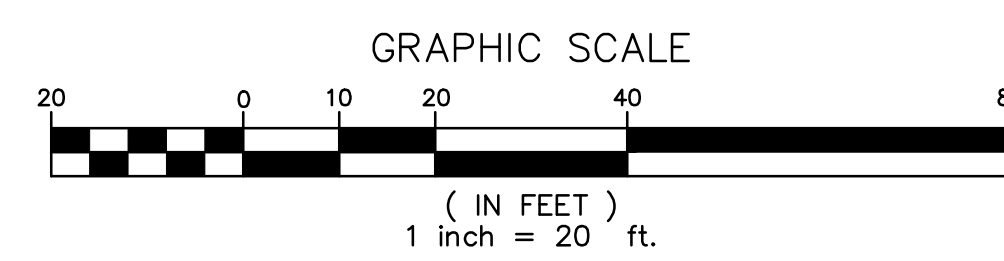
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ASHLAND, MASSACHUSETTS

GCG ASSOCIATES, INC.

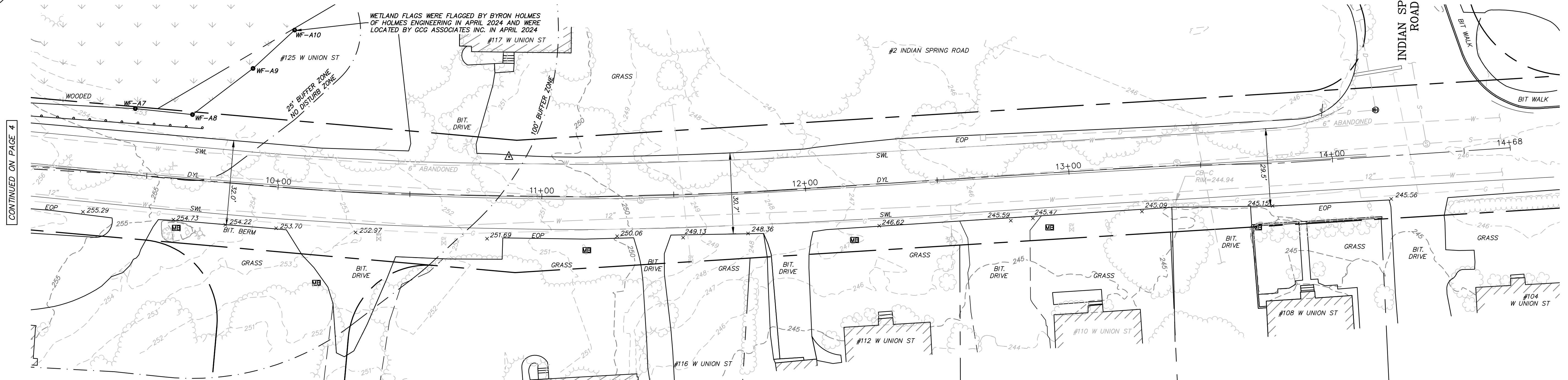
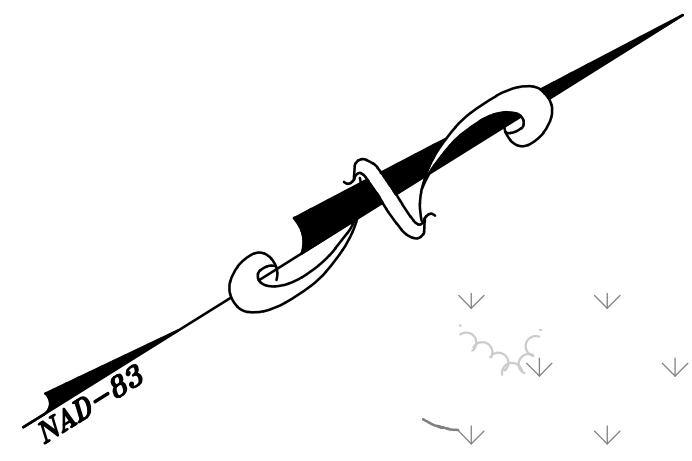
WILMINGTON MASSACHUSETTS

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WEST UNION STREET



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EXISTING CONDITIONS PLAN

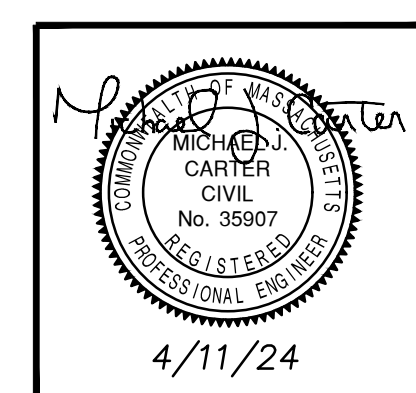
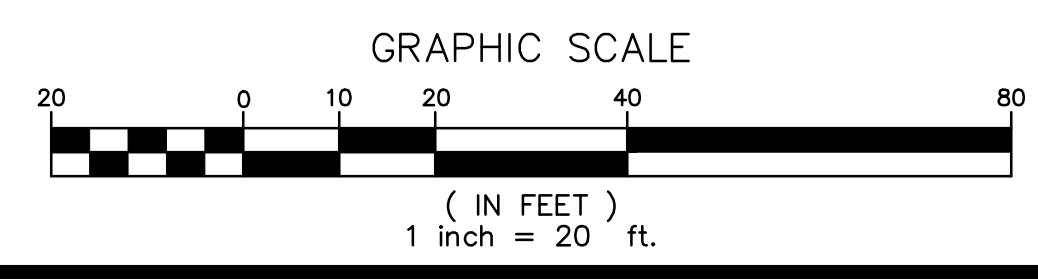
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SIDEWALK IMPROVEMENT PROJECT
ASHLAND, MASSACHUSETTS

GCG ASSOCIATES, INC.

WILMINGTON MASSACHUSETTS

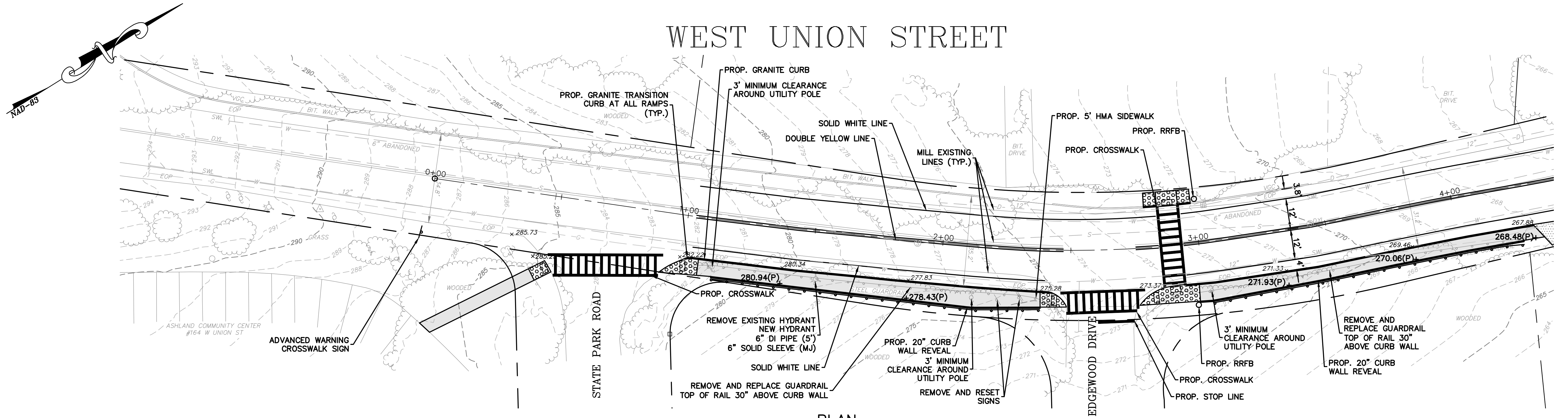
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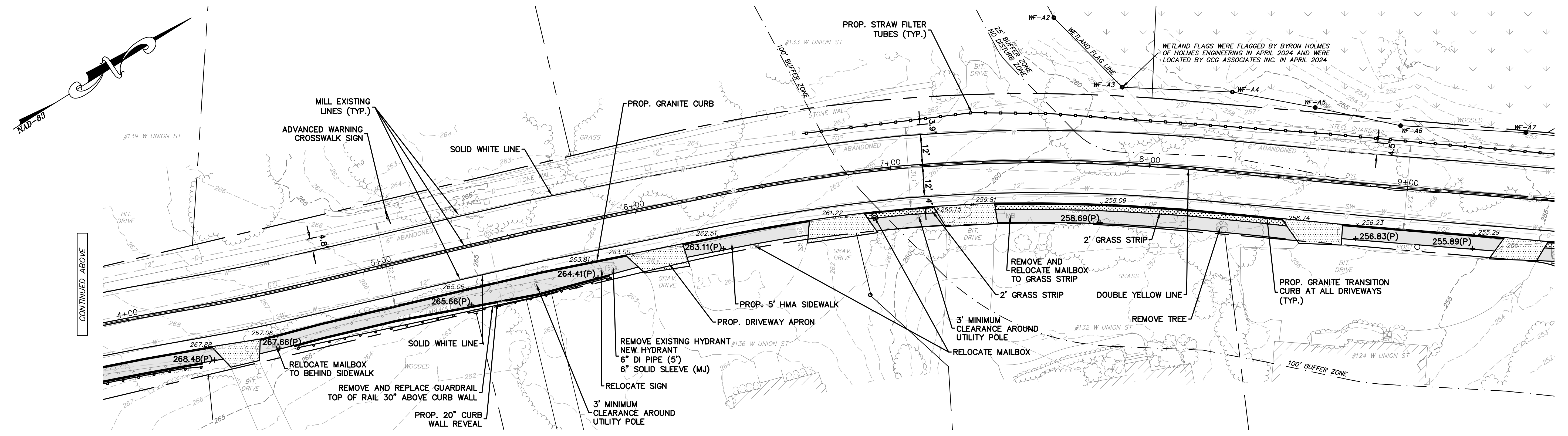
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WEST UNION STREET



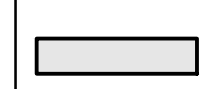
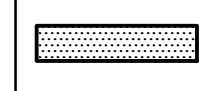

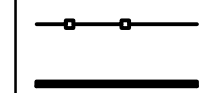

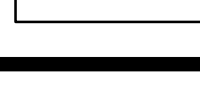
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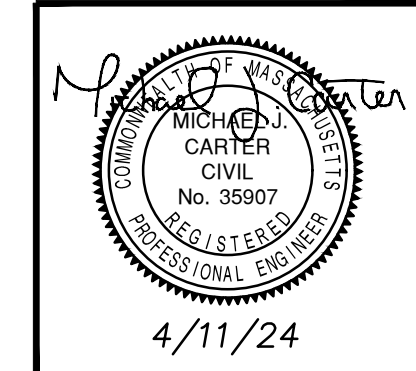
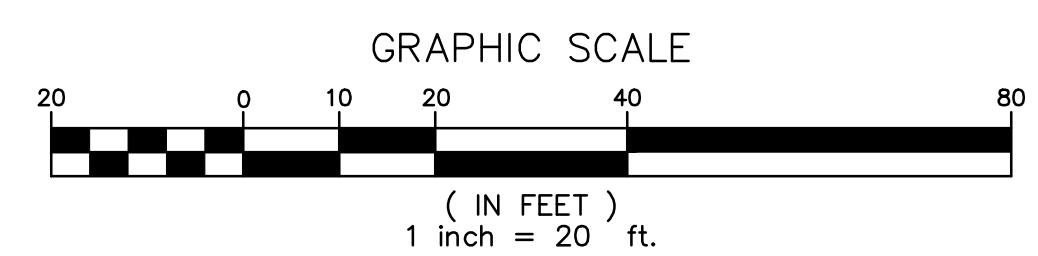
WEST UNION STREET



PLAN
SCALE: 1" = 20'

SITE IMPROVEMENT LEGEND

-  PROPOSED 5' HMA SIDEWALK 4" THICK, 2" TOP, 2" BINDER, 8" GRAVEL
-  REMOVE AND REPLACE DRIVEWAY APRON, GRADE TO MATCH EXISTING DRIVEWAY
-  PROPOSED CONCRETE HANDICAP RAMP, 6" THICK, 8" GRAVEL
-  PROP. STRAW FILTER TUBES
-  PROP. VERTICAL GRANITE CURBING
-  +200.00(P) PROP. SPOT ELEVATION



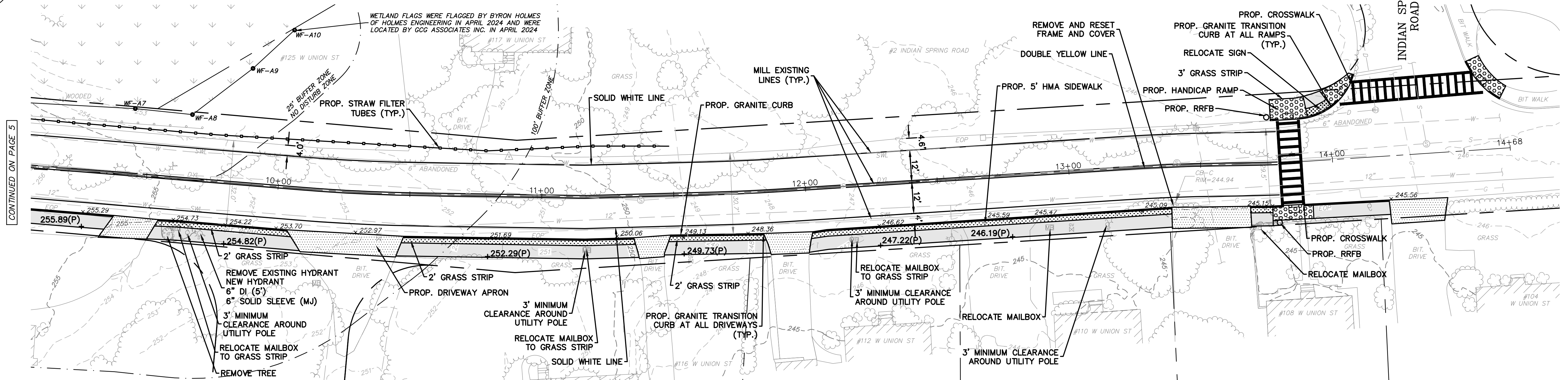
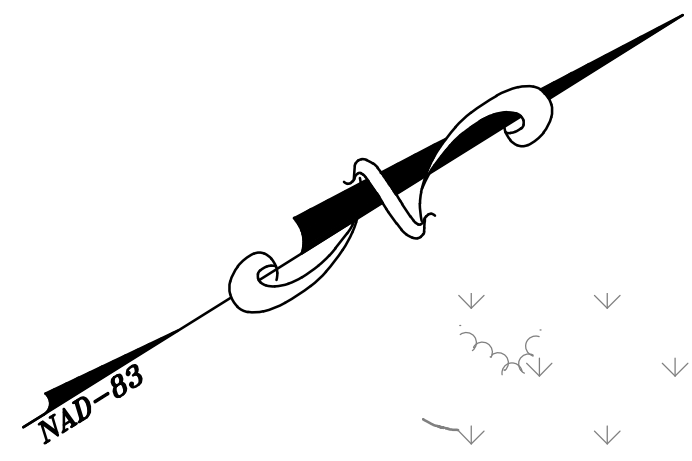
SIDEWALK IMPROVEMENT PLAN	
WEST UNION STREET SIDEWALK IMPROVEMENT PROJECT ASHLAND, MASSACHUSETTS	
GCG ASSOCIATES, INC.	
WILMINGTON MASSACHUSETTS	DATE: APRIL 11, 2024
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PLAN NO. 5 OF 8	

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WEST UNION STREET



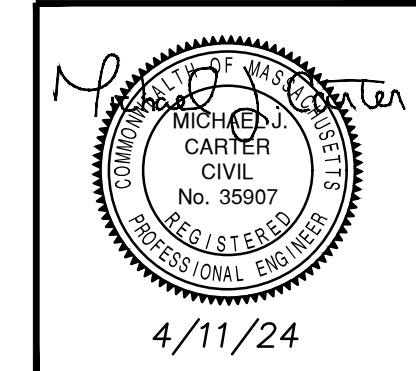
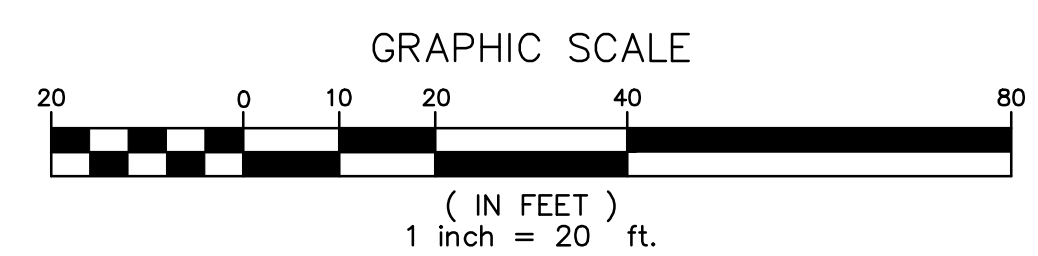
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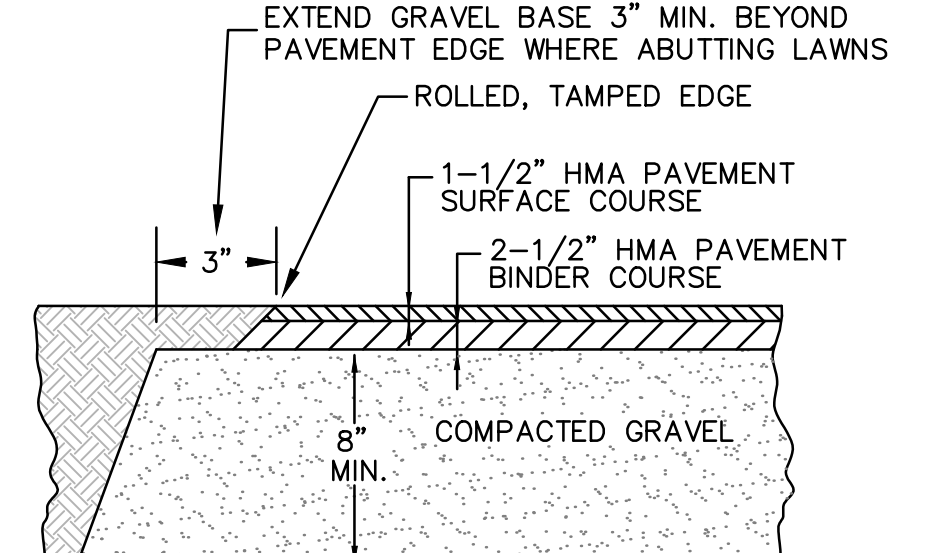
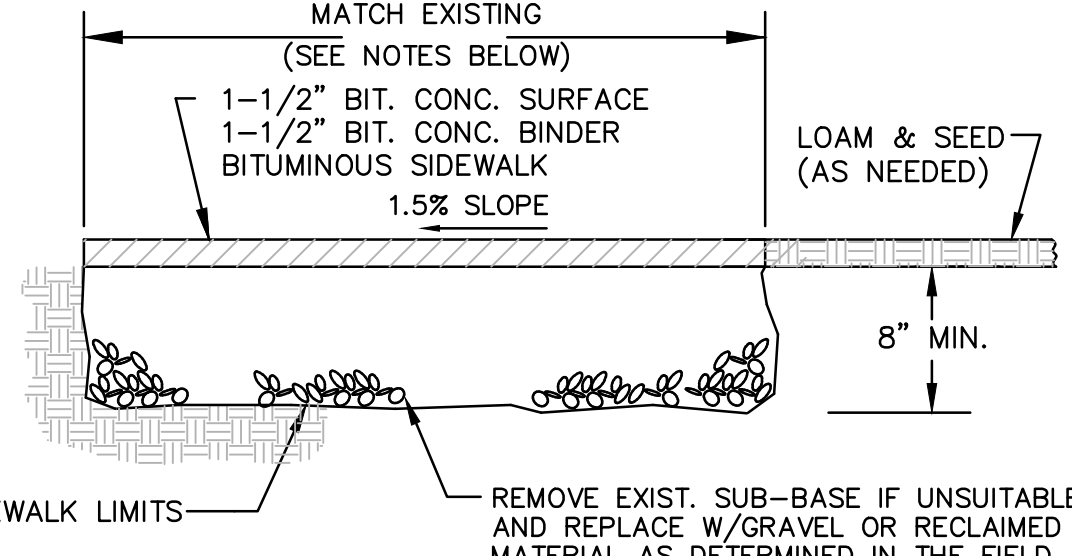
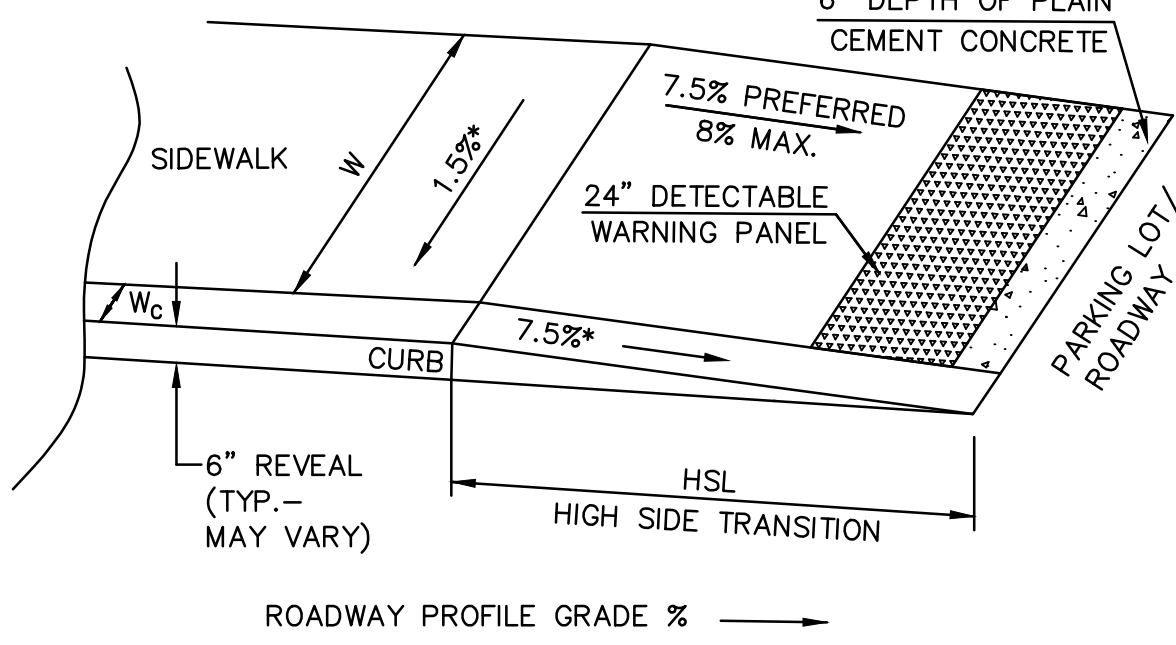
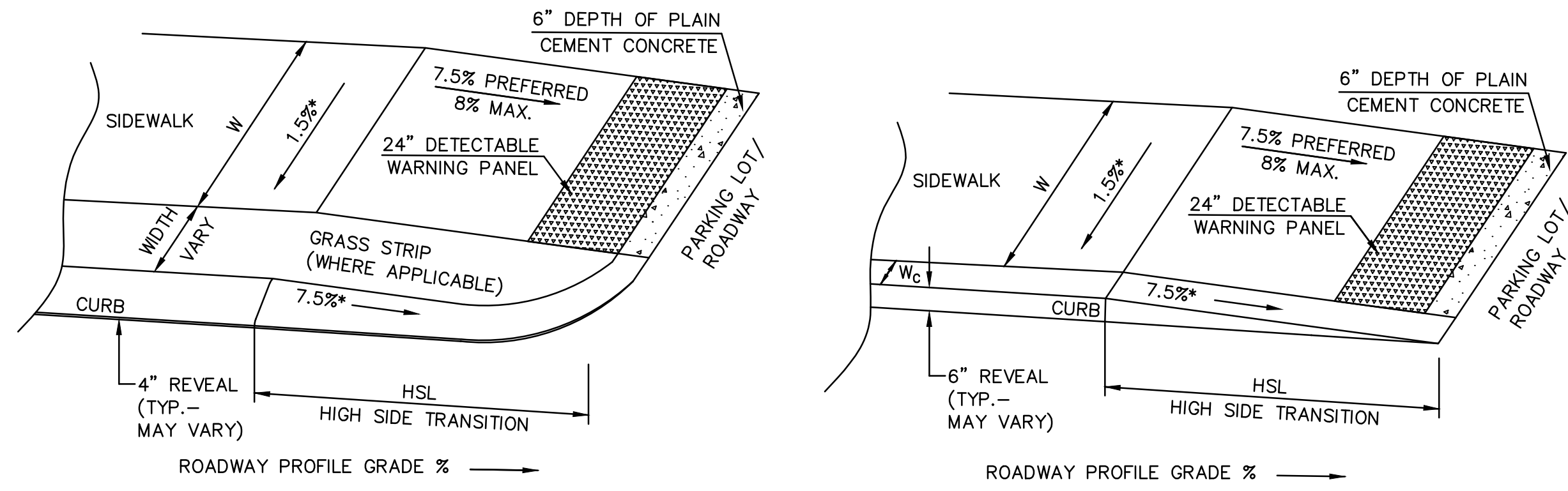
SITE IMPROVEMENT LEGEND

- PROPOSED 5' HMA SIDEWALK 4" THICK, 2" TOP, 2" BINDER, 8" GRAVEL
- REMOVE AND REPLACE DRIVEWAY APRON, GRADE TO MATCH EXISTING DRIVEWAY
- PROPOSED CONCRETE HANDICAP RAMP, 6" THICK, 8" GRAVEL
- PROP. STRAW FILTER TUBES
- PROP. VERTICAL GRANITE CURBING
- +200.00(P) PROP. SPOT ELEVATION

<i>SIDEWALK IMPROVEMENT PLAN</i>		
<i>WEST UNION STREET SIDEWALK IMPROVEMENT PROJECT ASHLAND, MASSACHUSETTS</i>		
GCG ASSOCIATES, INC.		
WILMINGTON		MASSACHUSETTS
SCALE: 1" = 20'		DATE: APRIL 11, 2024
JOB NO. \FILE NAME:	DESIGNED BY: R.S.T.	PLAN NO.
2353-DESIGN	DRAWN BY: B.A.I.	6 OF 8
	CHECKED BY: H.J.P.	



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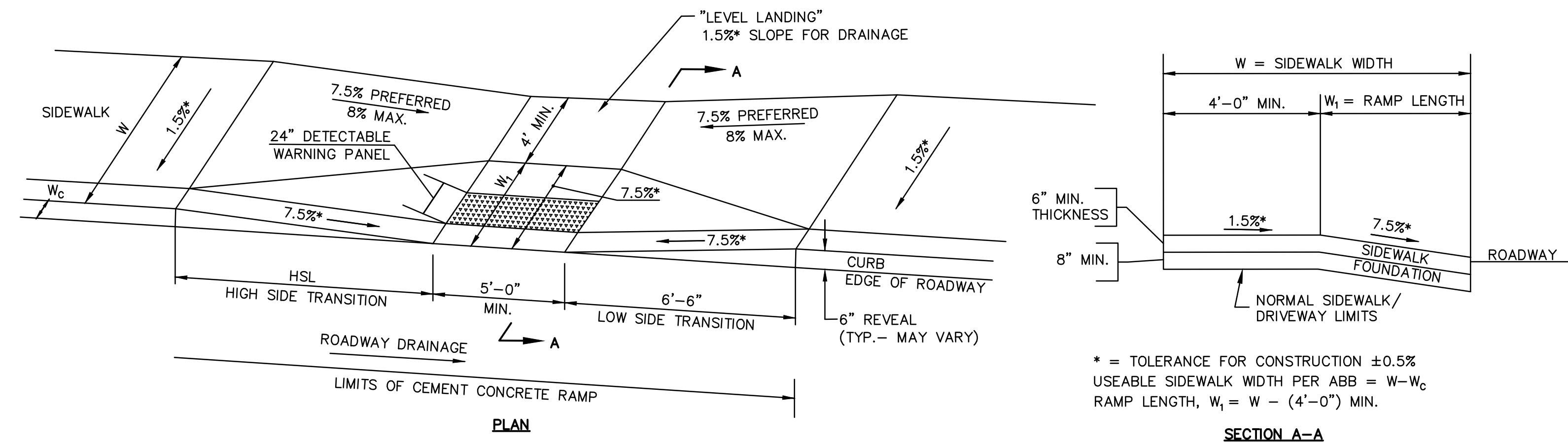
- NOTES:
- GRAVEL IN AREAS OF EXISTING SIDEWALKS WHICH ARE BEING REMOVED OR REPLACED IN THE SAME LOCATION SHALL BE REGRADED AND SUPPLEMENTAL GRAVEL ADDED. ADDITIONAL GRAVEL REQUIRED SHALL BE INCLUDED IN THE CONTRACT PRICE.
 - EXCAVATION AND PLACEMENT OF GRAVEL REQUIRED FOR NEW SIDEWALKS, WIDENING SIDEWALKS AND PAVED AREA SHALL BE INCLUDED IN THE CONTRACT PRICE. DISPOSAL OF THE EXCAVATED MATERIAL SHALL ALSO BE INCLUDED IN THE CONTRACT PRICE.
 - REMOVAL OF STUMPS AND CUTTING AND DISPOSAL OF ROOTS SHALL BE INCLUDED IN THE CONTRACT COST TO CONSTRUCT WALKWAYS.

NOTES:

- PROVIDE JOINT SEALANT WHERE PAVING ABUTS CURBING, WALLS, STEPS, CASTINGS, ETC.

TYPICAL DRIVEWAY PAVEMENT SECTION

N.T.S.



- DETAIL NOTES:**
- THE DIMENSIONS SHOWN AT ROADWAY EDGE ARE FIXED DISTANCES.
 - RAMP CROSS SECTION TO BE SAME AS ADJACENT SIDEWALK; e.g. DEPTH OF SURFACES.
 - PORTLAND CEMENT CONCRETE RAMPS ARE TO BE TEXTURED BY BROOMING IN A DIRECTION PARALLEL TO THE LENGTH OF THE RAMP.
 - ALL HANDICAP RAMPS SHALL BE PORTLAND CEMENT CONCRETE.
 - CURBING FOR ALL CONCRETE RAMPS SHALL BE GRANITE CURB.
 - THESE DIMENSIONS ARE SUBJECT TO CHANGE IN THE FIELD IF EXISTING APPURTENANCES OR CONDITIONS WILL MAKE THE RAMP LOCATIONS IMPRACTICAL OR UNSAFE.

- WHEELCHAIR RAMP NOTES**
- ROADWAY SIDEWALK CROSS SLOPES, FOR BRICK, CEMENT CONCRETE, AND BITUMINOUS CONCRETE, AS INDICATED IN THE STANDARD SPECIFICATIONS, WILL BE 1.5%. A CONSTRUCTION TOLERANCE OF ±0.5% IS ACCEPTABLE ON ROADWAY SIDEWALKS. IN ACCORDANCE WITH 521 CMR THE RULES AND REGULATIONS OF THE ARCHITECTURAL ACCESS BOARD (AAB), THE SIDEWALK CROSS SLOPE CANNOT EXCEED 2.0%.
 - AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 3'-3" SHALL BE MAINTAINED PAST ALL OBSTRUCTIONS (UTILITY POLES, SIGNS, SIGNAL FOUNDATIONS AND MASTS, MAILBOXES, ALONG DRIVE OPENINGS, ETC.).
 - THE WHEELCHAIR RAMP SLOPES AND SIDE SLOPES (TRANSITIONS) WILL BE 7.5% WITH A CONSTRUCTION TOLERANCE OF ±0.5% HOWEVER, THESE SLOPES MAY BE FLATTER WHEN WARRANTED BY SURROUNDING CONDITIONS.
 - IF THE ROAD PROFILE EXCEEDS 4%, THE HIGH SIDE TRANSITION LENGTH UNDER ANY CONDITIONS NEED NOT EXCEED 15'.
 - IN NO CASE WHERE A STOP LINE IS WARRANTED, SHALL A RAMP BE PLACED ON THE TRAFFIC APPROACH SIDE OF THAT STOP LINE.
 - FIXED OBJECTS (I.E. UTILITY POLES, HYDRANTS, SIGNS, SIGNAL FOUNDATIONS, ETC.) MUST NOT ENCRoACH UPON ANY PART OF THE WHEELCHAIR RAMP INCLUDING TRANSITION SLOPES.
 - AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP, EXCLUDING CURB TRANSITIONS, TO BE LOCATED OUTSIDE THE CROSSWALK OR PEDESTRIAN TRAVEL PATH. THE WHEELCHAIR RAMP ENTRANCE IS TO BE CENTERED IN THE CROSSWALK OR PEDESTRIAN TRAVEL PATH WHENEVER POSSIBLE.
 - CATCH BASINS WHICH ARE IN THE VICINITY OF A WHEELCHAIR RAMP SHALL BE LOCATED UPGRADE OF THE RAMP ENTRANCE.
 - THE ENTRANCE OF A WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
 - TESTING SURFACE: WHEN TESTING WITH A STRAIGHTEDGE PLACED PARALLEL TO THE LINE OF THE SLOPE THERE SHALL BE NO DEVIATION FROM A TRUE SURFACE IN EXCESS OF 1/4".
 - SIDEWALK CONSTRUCTION SHALL BE IN CONFORMANCE WITH MASS HIGHWAY CONSTRUCTION STANDARDS FOR WHEELCHAIR RAMPS.

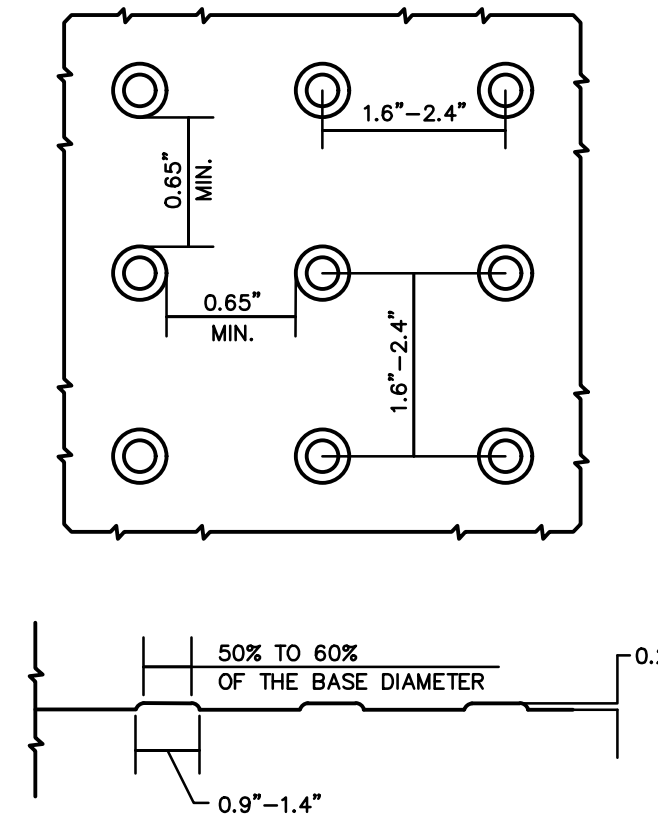
ROADWAY PROFILE GRADE %	*HIGH SIDE TRANSITION LENGTH
0	6'-6"
> 0 - 1	7'-8"
> 1 - 2	9'-0"
> 2 - 3	11'-0"
> 3 - 4	14'-0"
> 4	15'-0" MAX.

* BASED ON DESIGN SLOPE = 7.5% AND A CURB REVEAL OF 6".

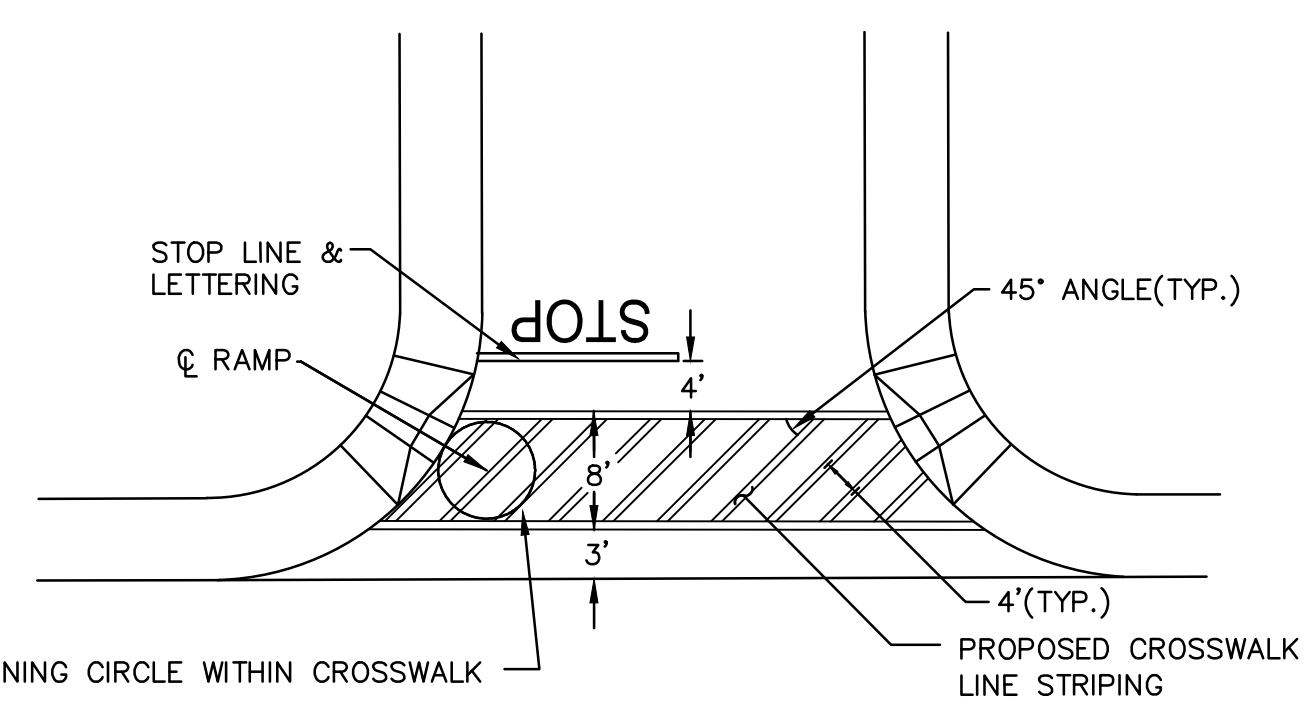
CURB TRANSITION LENGTH FOR WHEELCHAIR RAMPS

SIDEWALK DETAIL

N.T.S.



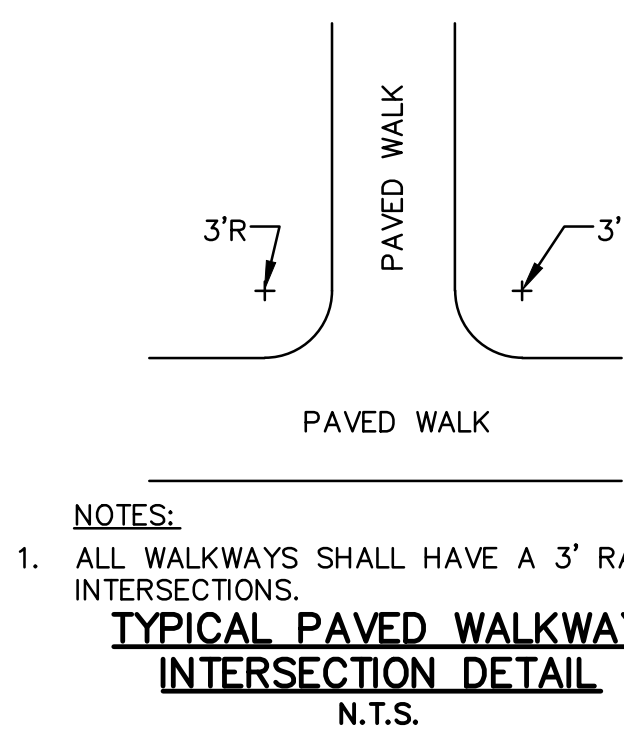
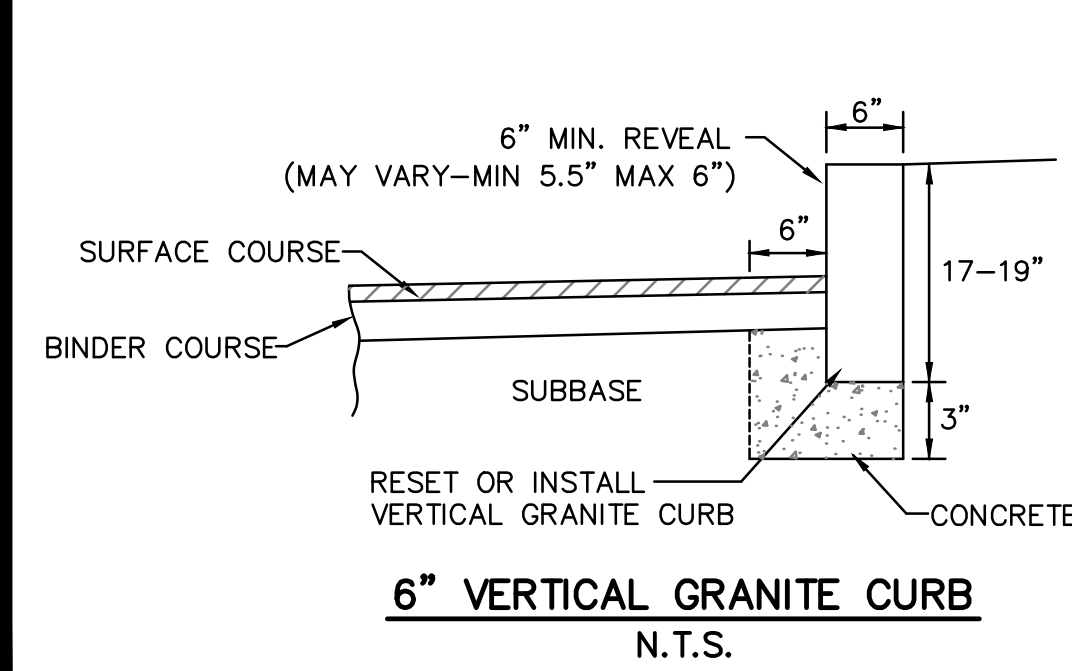
- NOTES:
- DETECTABLE WARNING PANEL SHALL BE RED UNLESS OTHERWISE SPECIFIED BY THE CITY ENGINEER.



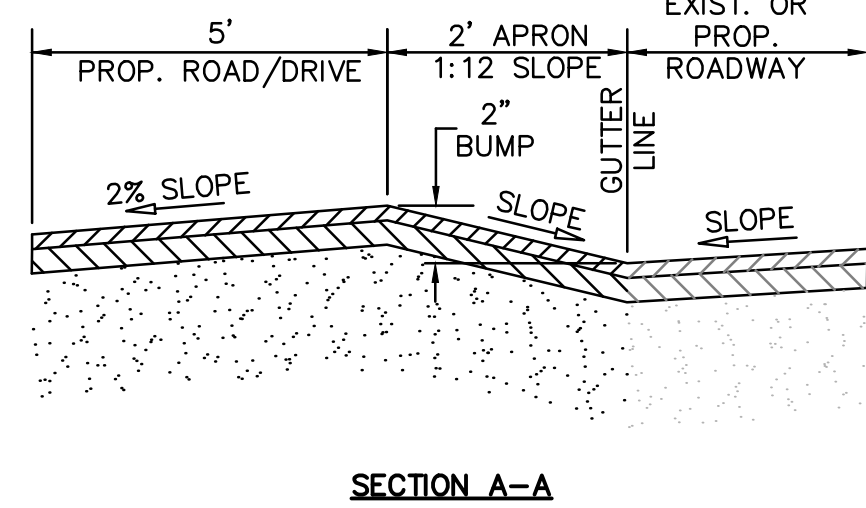
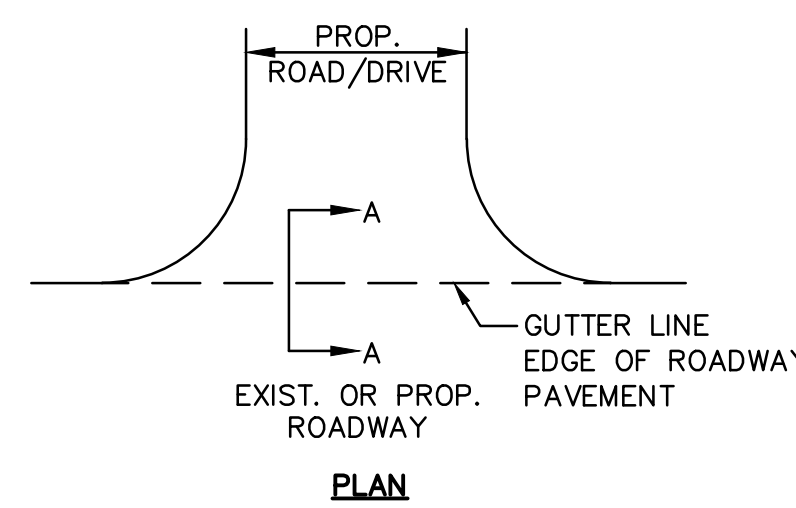
- NOTES:
- CROSSWALKS SHALL BE PAINTED AT ALL PAIRED WHEELCHAIR RAMP LOCATIONS WITHIN THE LIMITS OF WORK.
 - THE CROSSWALKS AND STOP LINES SHALL BE PAINTED WITH 12" WIDE, WHITE REFLECTORIZED, EPOXY PAINT IN THE PATTERN SHOWN.

TYPICAL WHEELCHAIR RAMP CONDITION

N.T.S.



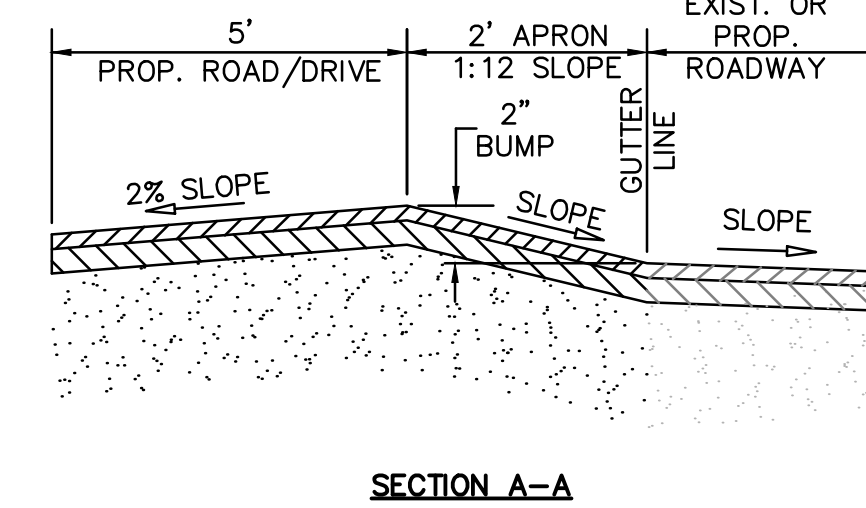
- NOTES:
- ALL WALKWAYS SHALL HAVE A 3' RADIUS AT INTERSECTIONS.



- NOTES:
- REPAIR 5' APRON AT EACH EXISTING DRIVEWAY AS NECESSARY.
 - SAWCUT PAVEMENT WHERE EXISTING SHALL MEET NEW.
 - SAND AND SEAL ALL JOINTS.

DRIVEWAY APRON TREATMENT DETAIL

N.T.S.



DETAILS I

WEST UNION STREET
SIDEWALK IMPROVEMENT PROJECT
ASHLAND, MASSACHUSETTS

GCG ASSOCIATES, INC.

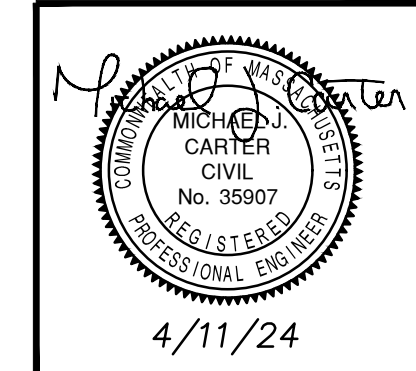
WILMINGTON MASSACHUSETTS

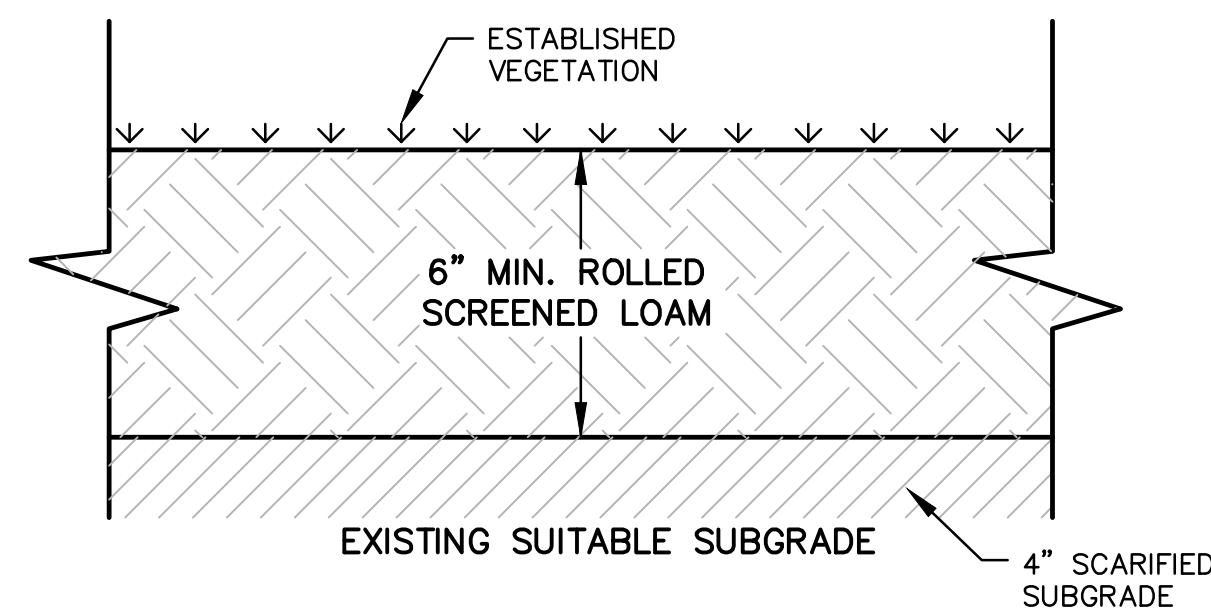
SCALE: 1" = 20' DATE: APRIL 11, 2024

JOB NO. \FILE NAME: 2353-DESIGN DESIGNED BY: R.S.T. PLAN NO. 7 OF 8

DRAWN BY: B.A.I. CHECKED BY: H.J.P.

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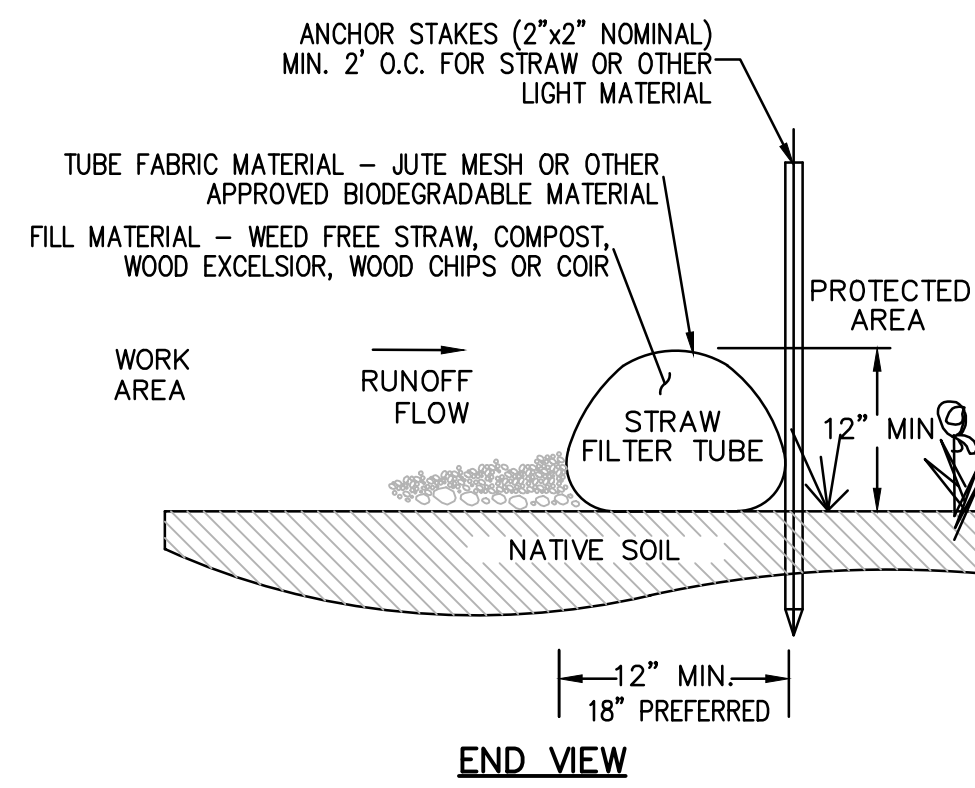




NOTES:

1. ALL DISTURBED AREAS TO BE LOAMED WITH A MINIMUM OF 6-INCHES OF SCREENED LOAM IN ACCORDANCE WITH MASSACHUSETTS HIGHWAY DEPARTMENT (MHD) STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES SECTION 751. LOAM MATERIAL SHALL MEET MHD M1.05.0 MATERIAL SOURCE AND IN-PLACE LABORATORY ANALYTICAL TESTING OF LOAM FOR COMPLIANCE WITH M1.05.0 MAY BE REQUESTED BY THE OWNER PRIOR TO PLACEMENT AND FINAL ACCEPTANCE.
2. AFTER PLACEMENT, ROLLING AND RAKING OF THE SCREENED TOPSOIL, SEEDING AND FERTILIZING OF THE TOP SOIL SHALL BE IN ACCORDANCE WITH MHD STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES SECTION 765. IF NECESSARY, REFERTILIZATION SHALL OCCUR IN ACCORDANCE WITH MHD SECTION 766.
3. MULCHING SHALL BE IN ACCORDANCE WITH MHD SECTION 767, FOR AREAS SPECIFICALLY INDICATED ON THE DRAWINGS, OR AS FIELD CONDITIONS MAY WARRANT.
4. SEED MIX, FERTILIZER AND MULCHING MATERIALS SHALL COMPLY WITH SECTION M6 OF MHD STANDARD SPECIFICATIONS FOR ROADSIDE DEVELOPMENT MATERIALS. SUBMITTAL REQUIREMENTS MAY INCLUDE PRODUCT LABELS OR LABORATORY ANALYTICAL TESTING, AS MAY BE REQUESTED BY THE OWNER OR THEIR AGENTS.

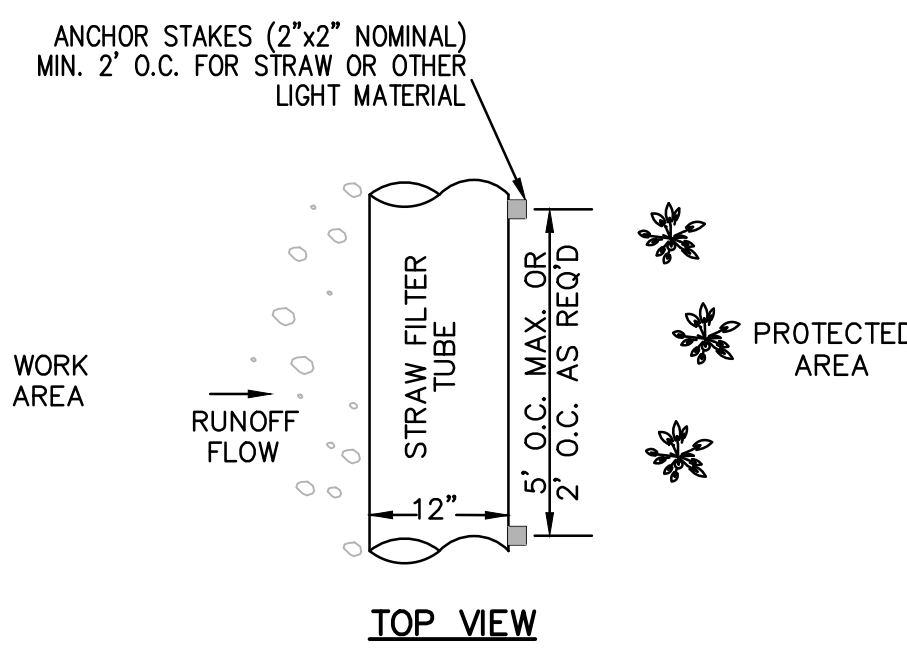
LOAM & SEED
NOT TO SCALE



NOTES:

1. TUBES MAY BE FILLED ON SITE OR SHIPPED.
2. ENSURE PROPER LOCATION AT SITE FOR EFFECTIVENESS.
3. TUBES SHALL BE PLACED AND STAKED IN PLACE AS REQUIRED TO ENSURE STABILITY AGAINST WATER FLOWS.
4. TUBES FILLED WITH LIGHT MATERIAL SHALL BE STAKED AT A MAXIMUM OF 2 FEET ON CENTER. FOR HEAVIER MATERIAL, 5 FEET ON CENTER.
5. TUBES SHALL BE TAMPED TO ENSURE GOOD CONTACT WITH SOIL.
6. INSPECT AFTER EACH RAINFALL OR DAILY DURING RAINFALL EVENTS. CORRECT ALL DEFICIENCIES IMMEDIATELY. FAILURE INCLUDES BUT IS NOT LIMITED TO WASHOUT, OVERTOPPING, CLOGGING, AND EROSION. IF OVERTOPPING OR WASHOUT OCCURS, NEW FILTER TUBES WITH ADDITIONAL STAKING OR STRAW MATERIAL SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.
7. FILTER TUBES SHALL BE REMOVED ONCE SITE WORK IS COMPLETE, SITE IS STABLE, ADEQUATE GROWTH HAS BEEN ESTABLISHED AND AS DIRECTED BY THE ENGINEER. TUBE FABRIC SHALL BE CUT, REMOVED AND DISPOSED OF OFF-SITE BY THE CONTRACTOR AT NO ADDITIONAL COST.

STRAW FILTER TUBE DETAIL
NOT TO SCALE



TOP VIEW

EROSION AND SEDIMENT CONTROL MAINTENANCE

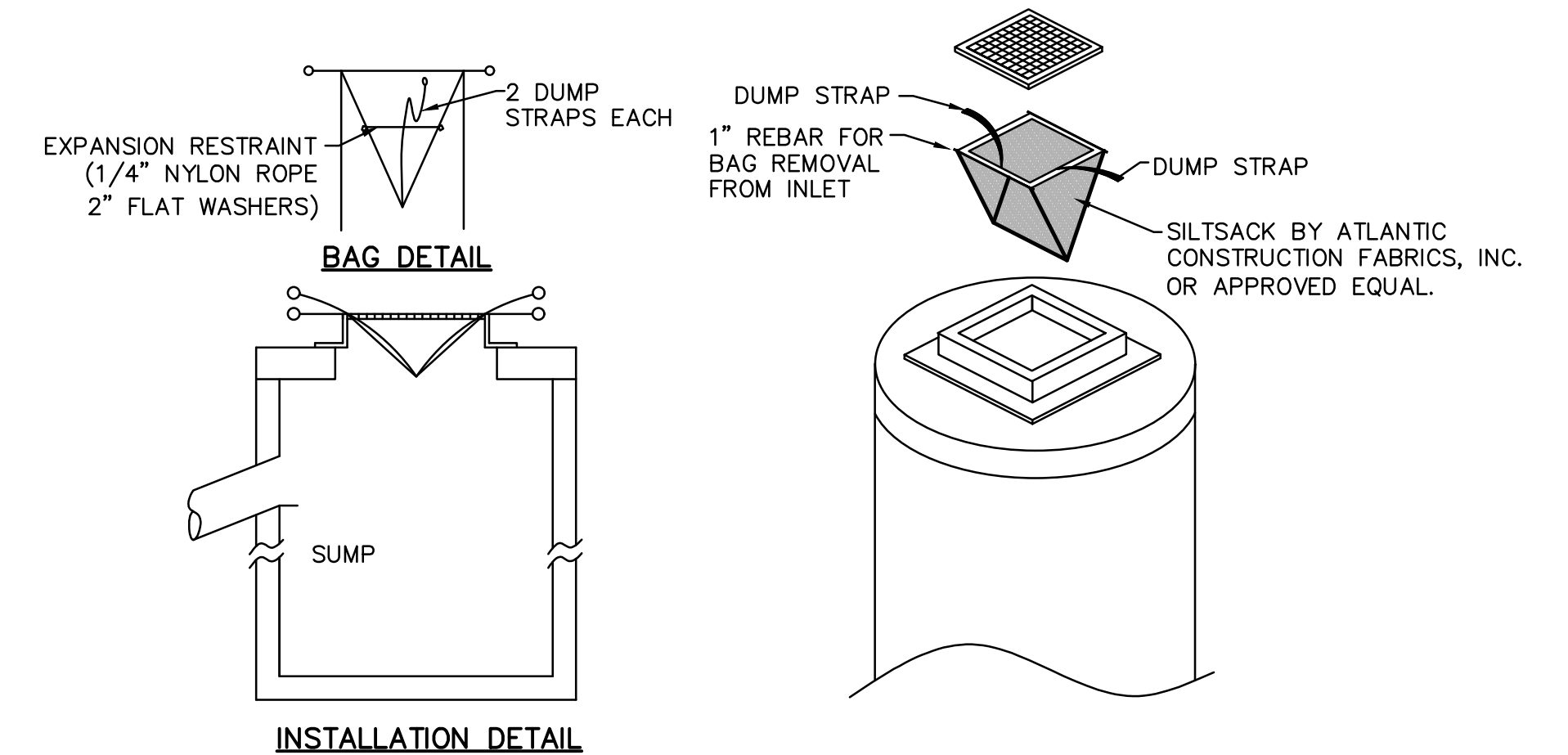
DURING CONSTRUCTION, AS SMALL AN AREA OF SOIL AS POSSIBLE SHOULD BE EXPOSED FOR AS SHORT A TIME AS POSSIBLE. AFTER CONSTRUCTION, GRADE, RESPREAD TOPSOIL, AND STABILIZE SOIL BY SEEDING AND MULCHING AS TO PREVENT EROSION.

ALL SEDIMENTATION AND EROSION CONTROL DEVICES SHALL BE INSPECTED DURING CONSTRUCTION ON A DAILY BASIS AND FOLLOWING ALL STORMS BY THE RESIDENT ENGINEER. THE CONTRACTOR SHALL MAINTAIN AND MAKE REPAIRS AND REMOVE SEDIMENT AS REQUESTED BY THE RESIDENT ENGINEER. THIS WORK SHALL BE PERFORMED WITHIN 24 HOURS OF REQUEST.

THE CONTRACTOR SHALL CLEAN SEDIMENT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, AND PIPES AT THE COMPLETION ON CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ALL ERODED AREAS AND ENSURE A GOOD STAND OF TURF IS ESTABLISHED THROUGHOUT. THE CONTRACTOR SHALL REPAIR ALL ERODED OR DISPLACED RIPRAP, AND CLEAN SEDIMENT COVERED STONES.

TRENCHES WITHIN PAVED ROADWAY TO BE CLOSED WITH 3" TEMPORARY PAVEMENT AT THE END OF EACH WORK DAY.

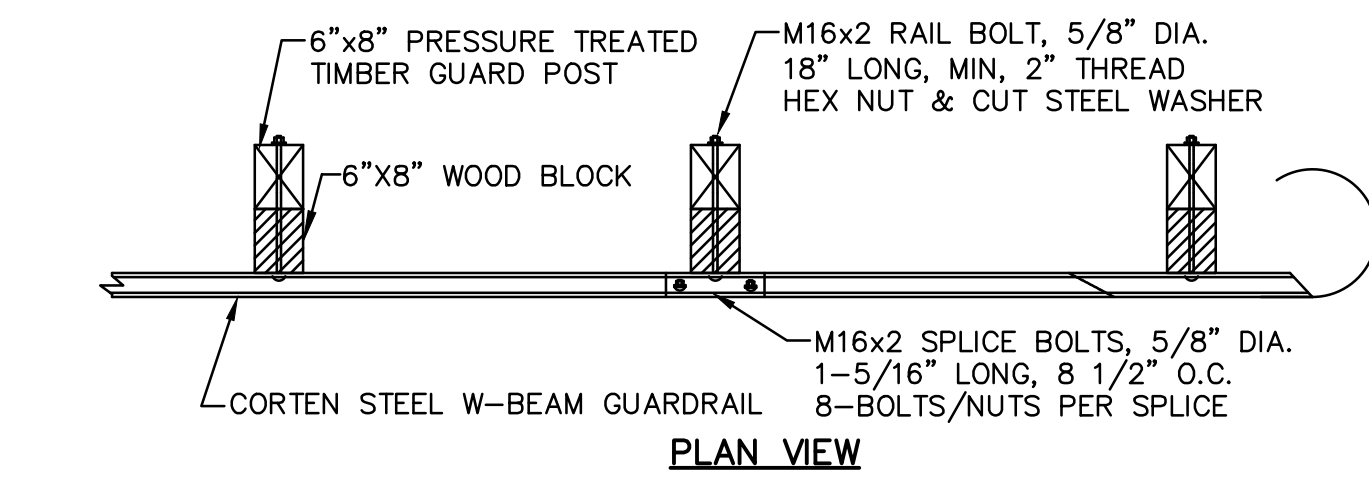
CONTRACTOR TO PERFORM STREET SWEEPING AT THE END OF EACH WORK DAY.



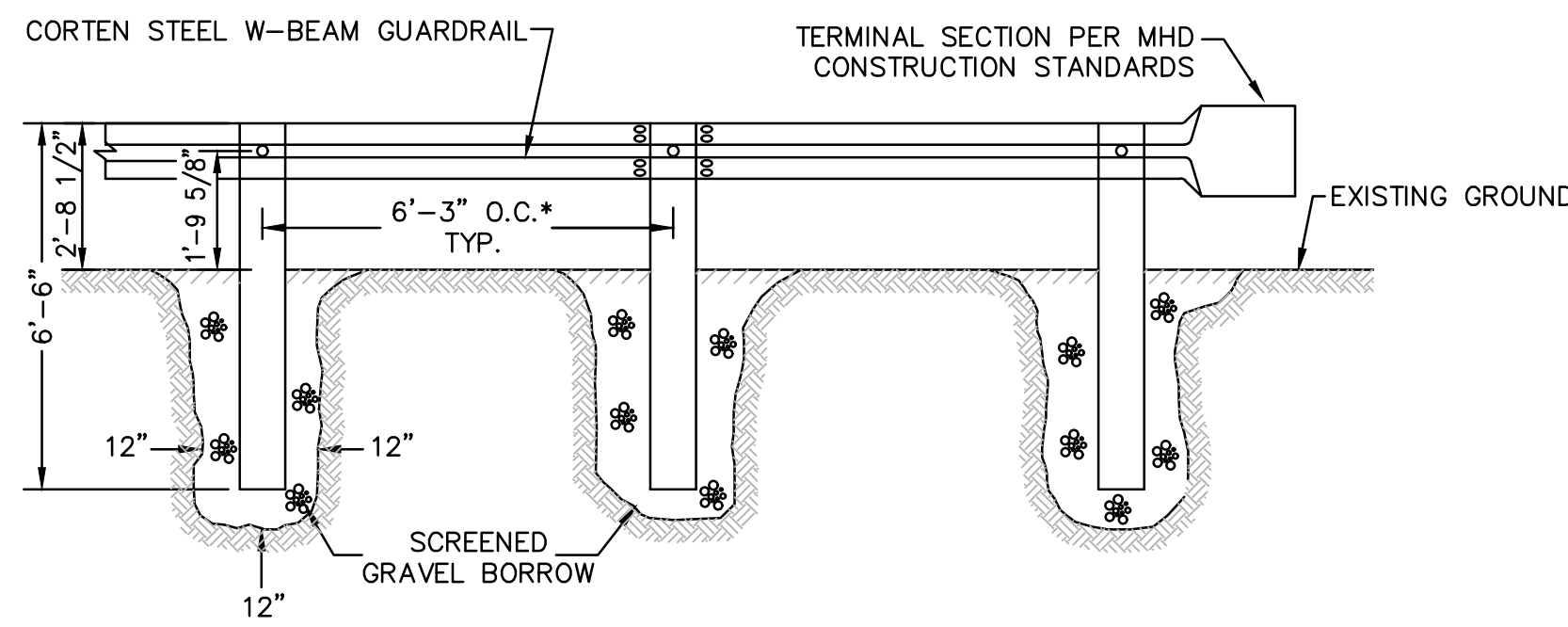
INSTALLATION DETAIL

1. SILT SACKS SHALL BE INSTALLED IN ALL CATCH BASINS DURING CONSTRUCTION PERIOD.
2. INSPECTION SHALL BE WEEKLY AND REPAIR/REPLACEMENT MADE PROMPTLY AS NEEDED.
3. SILT SACKS SHALL BE KEPT CLEAN AND FREE OF DEBRIS.

SILT SACK DETAIL
N.T.S.



PLAN VIEW



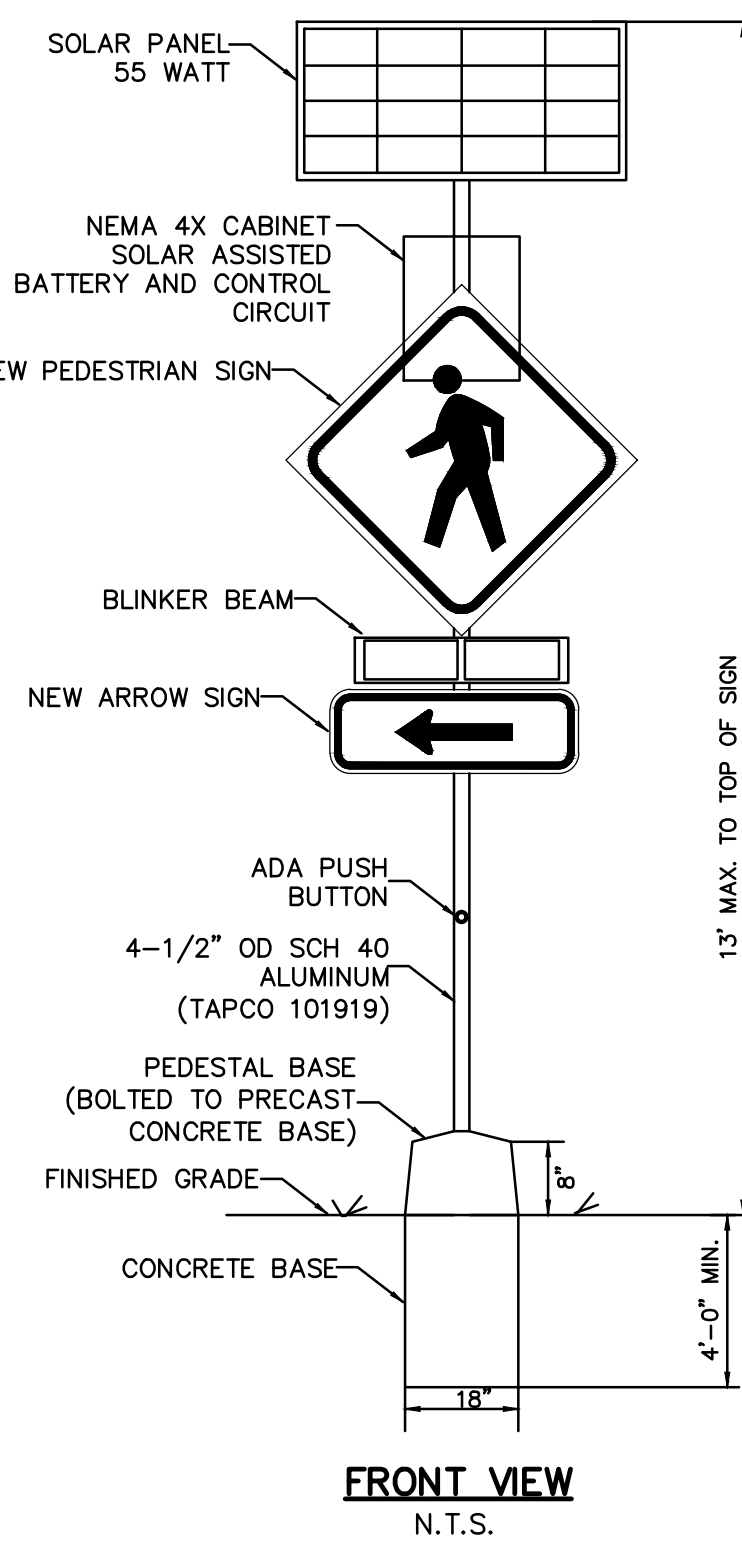
SECTION VIEW

NOTES:

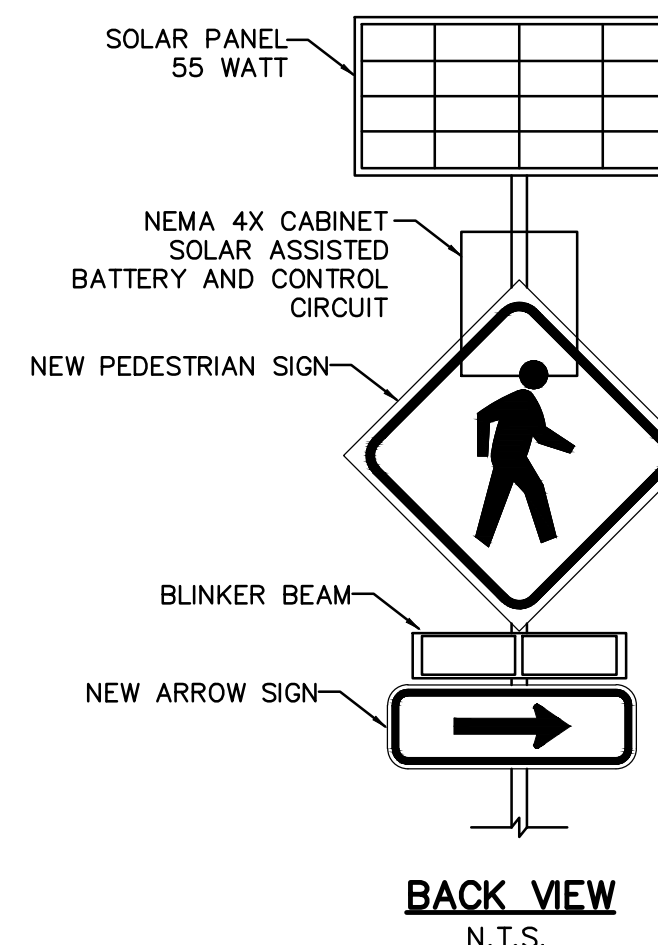
1. ALL PRESSURE TREATED TIMBERS SHALL BE SOUTHERN YELLOW PINE TREATED WITH CAA AND HAVE A MINIMUM 0.40 RETENTION TREATMENT PROCESS. PRESSURE TREATED TIMBERS SHALL BE "SUPATIMBER" BY CHEMICAL SPECIALTIES, INC., CHARLOTTE, NC OR EQUAL.
2. ALL NUTS, BOLTS, AND WASHERS ARE TO BE GALVANIZED.
3. SPLICES ARE TO LAP DOWNSTREAM IN DIRECTION OF TRAFFIC.
4. CONSTRUCTION AND MATERIALS SHALL CONFORM WITH MASSDOT CONSTRUCTION STANDARDS.

* CENTER TO CENTER SPACING OVER CULVERT SHALL BE 8'-6" AND W-BEAM SHALL BE DOUBLED.

CORTEN STEEL GUARDRAIL DETAILS
NOT TO SCALE



FRONT VIEW
N.T.S.

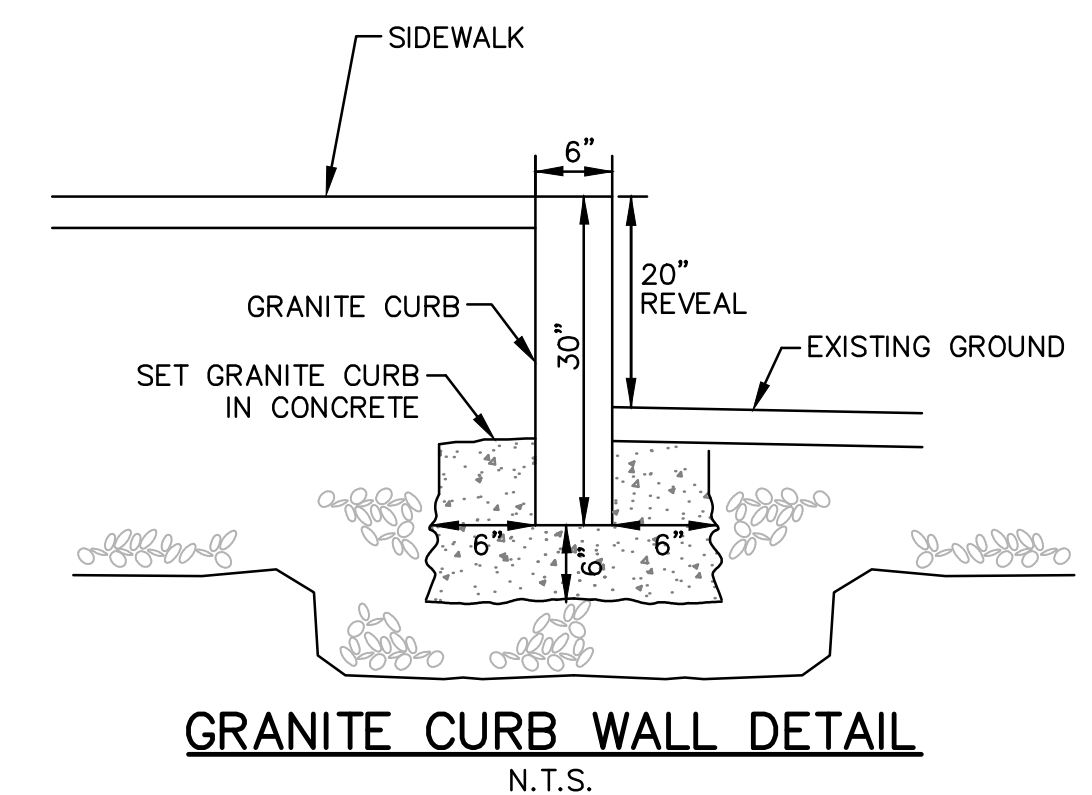


BACK VIEW
N.T.S.

FLASHING PEDESTRIAN CROSS WALK SIGN
N.T.S.

NOTES:

1. RECTANGULAR RAPID FLASH BEACON (RRFB) BY TAPCO, MODEL RRFB-XL2, INSTALL PER MANUFACTURER.
2. RRFB PAIRS TO SYNCHRONIZED VIA INTERNAL SECURE RADIO SYSTEMS.



GRANITE CURB WALL DETAIL
N.T.S.

DETAILS II

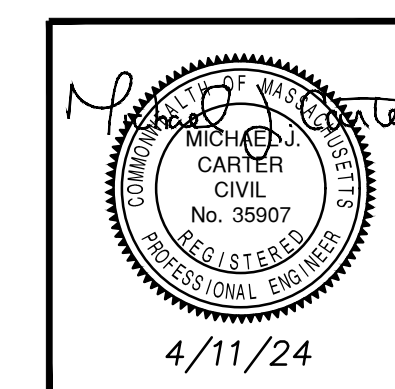
**WEST UNION STREET
SIDEWALK IMPROVEMENT PROJECT
ASHLAND, MASSACHUSETTS**

GCG ASSOCIATES, INC.

WILMINGTON MASSACHUSETTS

SCALE: 1" = 20' DATE: APRIL 11, 2024

JOB NO. \ FILE NAME:	DESIGNED BY: R.S.T.	PLAN NO.
2353-DESIGN	DRAWN BY: B.A.I.	8 OF 8
	CHECKED BY: H.J.P.	



4/11/24