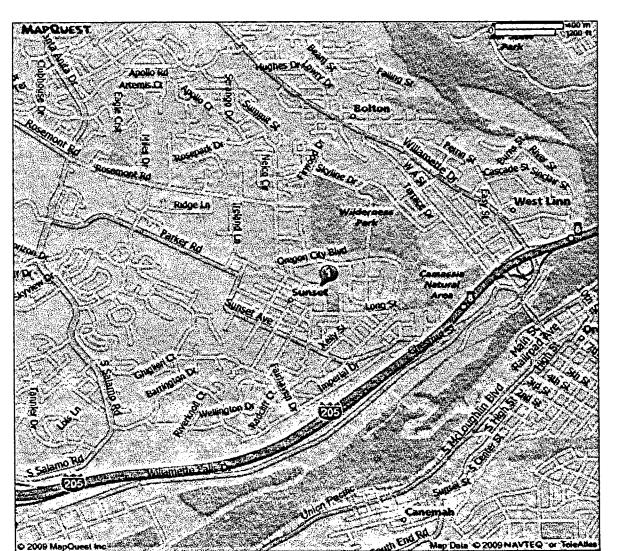
WALLWAY SCHOOLS

WEST LINN-WILSONVILLE SCHOOL DISTRICT SUNSET PARKING LOT PAVING REPAIR

CONSTRUCTION SET



SUNSET LOCATION MAP

DRAWING LIST

06/24/2009 08/05/2009 08/05/2009

AREA OF WORK -NEW PAVING

OWNER <u>WEST LINN - WILSONVILLE SCHOOL DISTRICT</u> 22210 SW STAFFORD ROAD WEST LINN, OR 97068 PHONE 503-673-7975 FAX 503-673-7044

CIVIL ENGINEER

PORTLAND, OR 97224 PHONE 503-226-3921 FAX 503-226-3926

SURVEYOR COMPASS ENGINEERING 6564 LAKE RD MILWAUKIE, OR 97222

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GENERAL SITE NOTES

- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE. CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE AND BECOMING FAMILIAR WITH THE SITE CONDITIONS PRIOR TO BIDDING.
- 2. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THAT NEW FEATURES TIE INTO EXISTING SITE DEVELOPMENT, PAVEMENT JOINTS MATCH CORRECTLY, AND THAT GENERAL DESIGN ELEVATIONS FOR NEW CONSTRUCTION PROVIDE PROPER PAVEMENT AND DRAINAGE SLOPES FROM EXISTING TIE IN POINTS. REPORT DISCREPANCIES TO OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
- 3. IN AREAS WHERE ASPHALT PAVING IS BEING REWORKED, PROVIDE NEW PAINT STRIPING FOR ALL REVISED PAVING WORK AND PARKING STALLS. EXISTING

STRIPING TO BE BLACKENED OUT IN RECONFIGURED AREAS AS REQUIRED.

- 4. ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH CITY INSPECTOR(S). CONTRACTOR SHALL NOTIFY CITY INSPECTOR(S) 48 HOURS PRIOR TO START OF CONSTRUCTION.
- 5. DURING CONSTRUCTION, THE CONTRACTOR AND/OR SUBCONTRACTORS SHALL HAVE A MINIMUM OF ONE (1) SET OF PERMIT APPROVED PLANS AND SPECIFICATIONS ON THE JOB SITE AT ALL TIMES.
- 6. UPON COMPLETION OF THE CONSTRUCTION PROJECT, THE CONTRACTOR SHALL LEAVE THE PROJECT AREA FREE OF DEBRIS AND UNUSED MATERIAL. ALL DAMAGE CAUSED BY THE CONTRACTOR SHALL BE RESTORED TO AN "AS GOOD OR BETTER" CONDITION.

GRADING NOTES

- 1. SURVEY OF EXISTING CONDITIONS PREPARED BY COMPASS ENGINEERING, THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL SURVEY DATA. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING RIGHT-OF-WAY LINES, SLOPE EASEMENTS, AND ALL HORIZONTAL AND VERTICAL CONTROL PRIOR TO CONSTRUCTION.
- 2. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING AND SHALL ARRANGE FOR STAKING WITH A LICENSED SURVEYOR. STAKING WILL BE REVIEWED BY OWNER FOR CONFORMATION TO DESIGN PRIOR TO CONSTRUCTION.
- 3. ALL GRADES BETWEEN SPOT ELEVATIONS SHALL HAVE UNIFORM SLOPE UNLESS OTHERWISE INDICATED. MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING WALLS AND DOORS.
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL CONSTRUCTION. ADEQUATE SHORING BRACING, TIES, AND SUPPORTS SHALL BE USED TO PROVIDE PROPER TEMPORARY INTEGRITY DURING ALL PHASES OF CONSTRUCTION
- 5. ALL EXISTING LANDSCAPED AND UNPAVED AREAS WHICH ARE DISTURBED BY CONSTRUCTION OR EARTHWORK OPERATIONS SHALL BE HAND RAKED SMOOTH AND RETURNED TO ORIGINAL EXISTING CONDITIONS. DISTURBED LANDSCAPED AREAS SHALL RECEIVE BARK DUST AND REPLACEMENT PLANTINGS. DISTURBED NATURAL AREAS SHALL BE HYDROSEEDED TO REPLACE NATIVE COVER. DISTURBED GRAVEL AREAS SHALL RECEIVE REPLACEMENT GRAVEL OR CRUSHED ROCK SURFACING.
- 6. ALL DITCHES, SWALES, GUTTERS, ETC. SHOULD BE CONSIDERED ACTIVE STORM CONVEYANCES UNLESS OTHERWISE INDICATED. CONTRACTOR IS RESPONSIBLE FOR ADDRESSING STORM WATER DRAINAGE AND DEWATERING OF WORK AREAS DURING CONSTRUCTION.
- 7. DURING WET WEATHER PERIODS, CONTRACTOR IS RESPONSIBLE FOR SEQUENCING CONSTRUCTION IN A MANNER TO MINIMIZE IMPACT ON OPEN EARTHWORK AND COMPACTION OPERATIONS.
- 8. ALL EXISTING MONUMENTS SHALL BE PROTECTED DURING CONSTRUCTION. IF ANY MONUMENTS ARE DISTURBED OR DESTROYED DURING CONSTRUCTION, CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED LAND SURVEYOR TO RESTORE THE MONUMENT TO ITS ORIGINAL CONDITION AND FILE THE NECESSARY SURVEYS AS REQUIRED BY STATE LAW.
- 9. COMPLETELY COVER ANY SOIL STOCKPILES WITH 6 MIL BLACK PLASTIC AND PROVIDE RESTRAINTS TO HOLD PLASTIC IN PLACE. MONITOR PLASTIC COVER AS PART OF CONTINUOUS EROSION CONTROL PLAN. PLACE SILT FENCE COMPLETELY AROUND STOCKPILE.

UTILITY NOTES

- LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE PLOTTED FROM RECORD DRAWINGS AND INTERPOLATION OF PHYSICAL EVIDENCE ON THE SITE AND ARE SUBJECT TO FIELD VERIFICATION BY THE CONTRACTOR.
- 2. ALL LOCATIONS FOR WORK SHALL BE CHECKED AND COORDINATED WITH EXISTING CONDITIONS IN THE FIELD BEFORE BEGINNING CONSTRUCTION UNDER THIS SECTION OR ANY OTHER SECTION.
- 3. THE WORKING DRAWINGS ARE GENERALLY DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW REQUIRED FOR INSTALLATION IN THE SPACE PROVIDED. THEY DO NOT SHOW EVERY DIMENSION, COMPONENT PIECE, OR FITTING REQUIRED TO COMPLETE THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND WORKING SYSTEM.
- CONTRACTOR SHALL COORDINATE A UTILITY LOCATE 48 HOURS PRIOR TO BEGINNING ANY UTILITY CONSTRUCTION FOR LOCATION MARK-UP OF ALL EXISTING UTILITIES BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY. CONTRACTOR SHALL COORDINATE THE UTILITY LOCAL WITH MUNICIPALITY HAVING JURISDICTION FOR ALL UTILITY WORK WITHIN A PUBLIC RIGHT-OF-WAY. INFORM ENGINEER IMMEDIATELY IF LOCATE INDICATES THAT EXISTING UTILITIES ARE DIFFERENT THAN SHOWN ON DRAWINGS.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES, FEATURES, AND STRUCTURES LOCATED ON THE SITE. LOCATE, PROTECT, AND AVOID DISRUPTION OF ALL ABOVE AND BELOW GRADE UTILITIES DURING CONSTRUCTION.
- 6. ALL EXISTING UTILTIES AND TIE IN POINTS SHOULD BE CONSIDERED ACTIVE UTILITIES UNLESS OTHERWISE NOTED.
- 7. ALL UTILITY INSTALLATION TRENCHES AND BACKFILLING SHALL BE PER

STANDARD DETAIL -

PORTLAND EROSION CONTROL MANUAL.

EROSION CONTROL ALL EROSION, SEDIMENT, AND POLLUTION CONTROL PLAN (ESPCP) MEASURES SHALL BE INSTALLED AS PER THE DETAIL DRAWINGS IN THE CITY OF

C1 C2

- TEMPORARY ESPCP MEASURES SHALL BE INSTALLED, INSPECTED, AND APPROVED BY A CITY INSPECTOR BEFORE STARTING GROUND DISTURBING **ACTIVITIES.**
- THE ESPCP FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESPCP FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
- PUBLIC STREETS WILL BE SWEPT DAILY, IF NECESSARY, TO ALLEVIATE SEDIMENT DISCHARGE TO THE STORM WATER MANAGEMENT SYSTEM. UNFILTERED WASH WATER CANNOT BE DISCHARGED TO STORM DRAINS.
- ALL EROSION CONTROL SEEDING FOR SITE STABILIZATION WILL BE PERFORMED NO LATER THAN SEPTEMBER 1ST TO ALLOW TIME FOR VEGETATIVE ESTABLISHMENT PRIOR TO THE ONSET OF THE WET WEATHER SEASON.
- 6. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THEY ARE NO LONGER NEEDED.
- 7. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL AREAS RESULTING FROM REMOVAL SHALL BE REPAIRED AND PROTECTED WITH ADEQUATE GROUND COVER (2" STRAW, COMPOST, MULCH, ETC.)
- 8. THE PROPOSED EROSION CONTROL MEASURES ARE A MINIMUM BEST MANAGEMENT PRACTICE. THE CONTRACTOR MAY BE REQUIRED TO MAKE ADDITIONAL EROSION CONTROL MEASURES TO ENSURE THAT NO SEDIMENT LADEN WATER EXITS THE SITE OR ENTERS THE EXISTING STORMWATER SYSTEM.

CIVIL ABBREVIATIONS

- ANCHOR BOLT NOT IN CONTRACT ASPHALTIC CONCRETE NUMBER NOM ASBESTOS CONCRETE PIPE NOMINAL NTS NOT TO SCALE BUILDING BOTTOM OF TRENCH ON CENTER BOTTOM OF CONCRETE OVERHEAD BOTTOM OF SUMP OIL/WATER SEPARATOR COMPRESSED AIR POLYDRAIN CATCH BASIN PERFORATED STORM DRAIN CONSTRUCTION JOINT POST INDICTOR VALVE POINT OF CONNECTION CURB INLET CAST IRON PIPE POLYVINYL CHLORIDE
- CORRUGATED METAL PIPE PAVEMENT POTABLE WATER CLEANOUT CONCRETE RADIUS CONDENSATE RETURN REINFORCED CONCRETE PIPE RIM ELEVATION DUCTILE IRON PIPE RAILROAD DOWNSPOUTS
- DRYWELL DRAWING SANITARY SPLASH BLOCK ELECTRICAL POWER STORM DRAIN ELEV ELEC EXIST ELEVATION SANITARY SEWER ELECTRICAL STEAM EXISTING
 - THRUST BLOCK FIRE ALARM TEMPORARY BENCH MARK FOUNDATION DRAIN TOP OF CURB FINISH FLOOR TELEPHONE FIRE HYDRANT TOP OF BERM FIRE WATER TOP OF CONCRETE TOP OF GRATE **GUTTER** TOP OF PIPE TYPICAL GATE VALVE

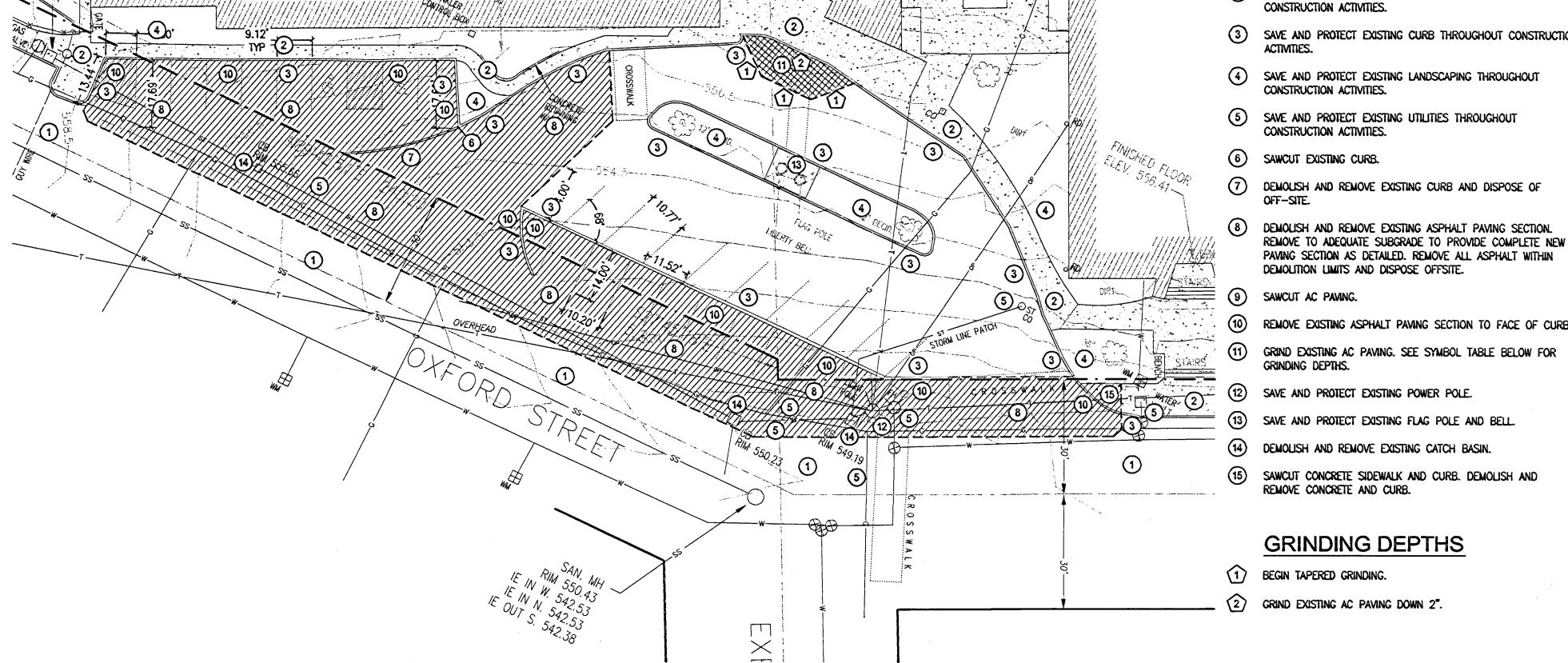
UGND UNDERGROUND

WATER

- UNLESS NOTED OTHERWISE HIGH DENSITY POLYETHYLENE HAND HOLE VCP VITRIFIED CLAY PIPE HIGH PRESSURE GAS HANDICAPPED VALVE VAULT HYDRANT
- IRRIGATION WATER VALVE WELDED WIRE FABRIC XFMR TRANSFORMER LIGHT POLE
- MAXIMUM MANHOLE MINIMUM

GRADE

(1) SAVE AND PROTECT EXISTING ASPHALT THROUGHOUT BUILDING CONSTRUCTION ACTIVITIES. (2) SAVE AND PROTECT EXISTING CONCRETE THROUGHOUT CONSTRUCTION ACTIVITIES. (3) SAVE AND PROTECT EXISTING CURB THROUGHOUT CONSTRUCTION (4) SAVE AND PROTECT EXISTING LANDSCAPING THROUGHOUT CONSTRUCTION ACTIVITIES. 5) SAVE AND PROTECT EXISTING UTILITIES THROUGHOUT CONSTRUCTION ACTIVITIES.



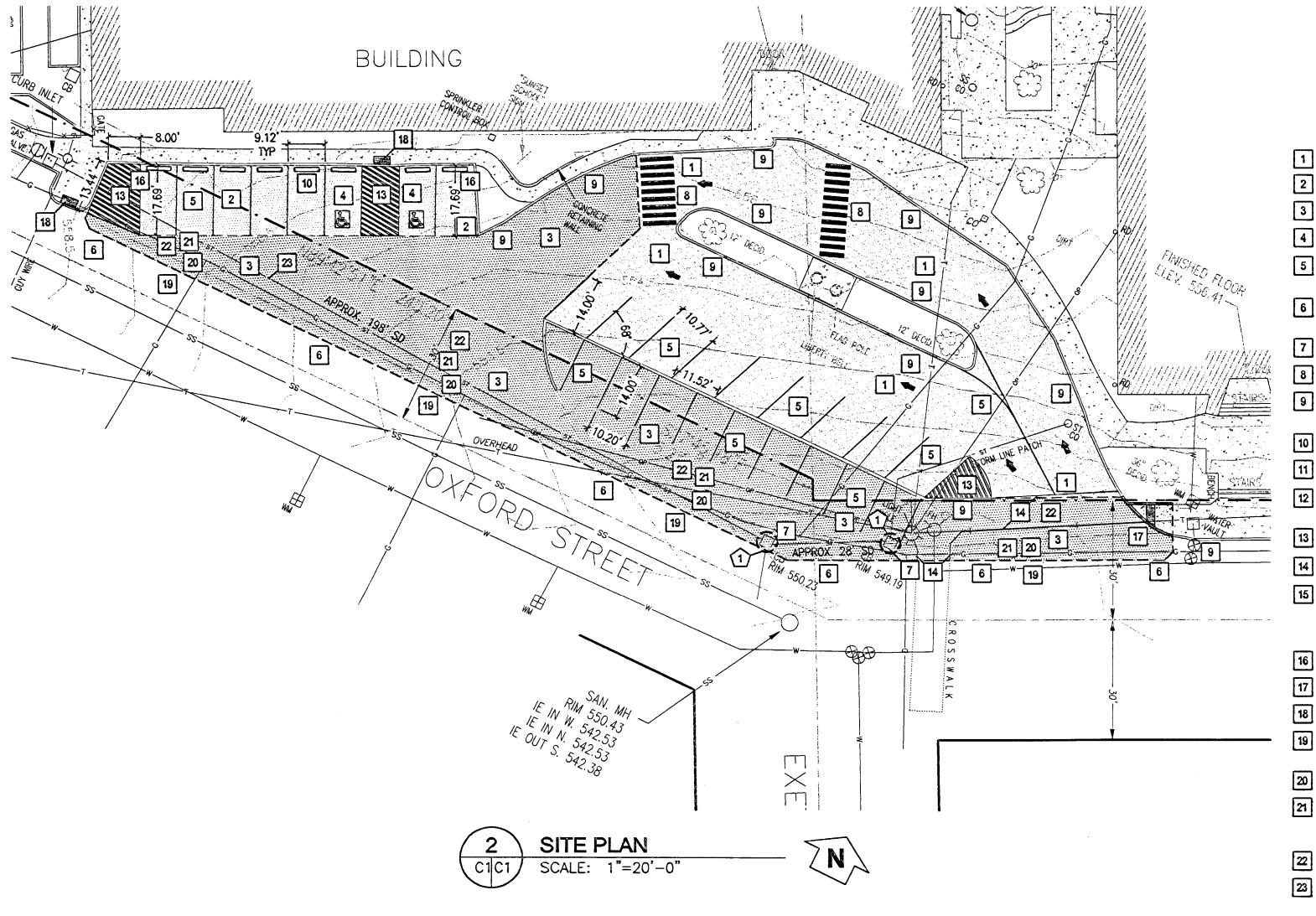
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DEMO PLAN

SCALE: 1"=20'-0

PAVING SECTION AS DETAILED. REMOVE ALL ASPHALT WITHIN DEMOLITION LIMITS AND DISPOSE OFFSITE. SAWCUT AC PAVING. 10 REMOVE EXISTING ASPHALT PAVING SECTION TO FACE OF CURB. (11) GRIND EXISTING AC PAVING. SEE SYMBOL TABLE BELOW FOR SAVE AND PROTECT EXISTING POWER POLE. SAVE AND PROTECT EXISTING FLAG POLE AND BELL DEMOLISH AND REMOVE EXISTING CATCH BASIN. SAWCUT CONCRETE SIDEWALK AND CURB. DEMOLISH AND REMOVE CONCRETE AND CURB. **GRINDING DEPTHS** BEGIN TAPERED GRINDING. (2) GRIND EXISTING AC PAVING DOWN 2".

SITE DEMOLITION NOTES



SITE CONSTRUCTION NOTES

1 CONSTRUCT ASPHALT OVERLAY SECTION. -CONSTRUCT LIGHT ASPHALT PAVING SECTION. 3 CONSTRUCT HEAVY ASPHALT PAVING SECTION.-4 REINSTALL ADA APPROVED PARKING STALL PAVEMENT MARKINGS

5 REINSTALL 3" WIDE WHITE PARKING STRIPING TO MATCH EXISTING LAYOUT AS INDICATED (TYPICAL).

6 MATCH EXISTING AC PAVING ELEVATION, PROVIDE TACK COAT AT 7 INSTALL CATCH BASIN. -

8 REINSTALL CROSSWALK STRIPING. 9 SANDBLAST EXISTING CURB CLEAN AND PROVIDE YELLOW PAINTED CURB SURFACE.

10 INSTALL PRECAST CONCRETE WHEEL STOP (TYPICAL OF 8).-11 REINSTALL DIRECTIONAL PARKING LOT PAVEMENT ARROWS. -

RESULTING EXISTING CURB REVEAL TO BE MINIMUM 3" AFTER

13 PROVIDE ANGLED 3" WIDE WHITE PAVEMENT STRIPING 14 REINSTALL 8" WIDE CROSSWALK STRIPPING.

15 PAY PARTICULAR ATTENTION TO PRE-EXISTING AREAS OF FAILED PAVING. OVER-EXCAVATE AND RECOMPACT WITH IMPORTED STRUCTURAL AS INDICATED ON CIVIL PLAN. CONDUCT COMPACTION TEST OF SUBGRADE BEFORE PAVING.

16 MATCH EXISTING GUTTER LINE.

17 INSTALL ADA RAMP WITH TRUNCATED DOME WARNING STRIP. 18 INSTALL ADA TRUNCATED DOME WARNING STRIP.

19 PROVIDE A STRAIGHT CUT TO ENCOMPASS ALL DAMAGES DONE BY CONSTRUCTION.

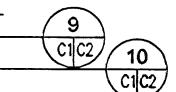
20 GEOTECH TO PROVIDE CERTIFICATE OF SUBGRADE COMPACTION. 21 PROOF ROLL WITH LOADED ROCK DUMP TRUCK PER CITY OF WEST LINN CONSTRUCTION STANDARD UNDER CITY INSPECTOR

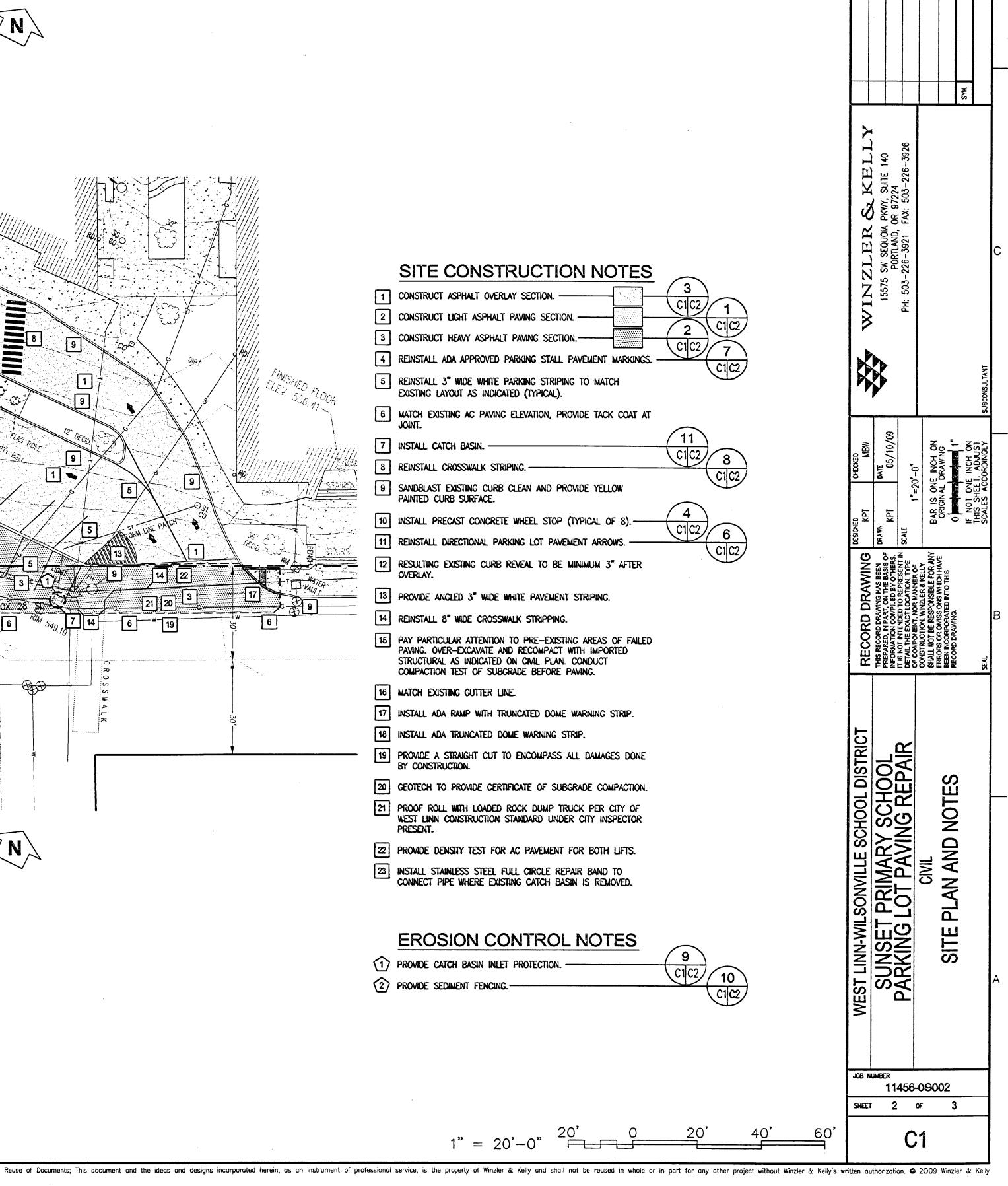
22 PROVIDE DENSITY TEST FOR AC PAVEMENT FOR BOTH LIFTS.

23 INSTALL STAINLESS STEEL FULL CIRCLE REPAIR BAND TO CONNECT PIPE WHERE EXISTING CATCH BASIN IS REMOVED.

EROSION CONTROL NOTES

- 1) PROVIDE CATCH BASIN INLET PROTECTION. —
- 2) PROVIDE SEDIMENT FENCING.-





- PROTECT NEWLY GRADED AREAS FROM TRAFFIC, EROSION, AND SETTLEMENTS. REPAIR AND RE-ESTABLISH DAMAGED OR ERODED SLOPES, ELEVATIONS, OR GRADES AND RESTORE SURFACE CONSTRUCTION PRIOR TO ACCEPTANCE. PROTECT EXISTING STREAMS, DITCHES, AND STORM DRAIN INLETS FROM WATER-BORNE SOLID BY MEANS OF STRAW BALE DIKES AND/OR FILTER FABRIC DAMS AS INDICATED.
- 4. AGGREGATE BASE COURSE MATERIAL

SECTION 31 23 00 - EARTHWORK

- A. BASE COURSE MATERIAL: 11/2" MINUS WELL GRADED CRUSHED ROCK WITH LESS THAN 5% OF FINES
- PASSING THROUGH A #200 SIEVE. LEVELING COURSE MATERIAL: 🔏 MINUS WELL GRADED CRUSHED ROCK WITH LESS THAN 5% OF FINES PASSING THROUGH A #200 SIEVE.
- DRAINAGE AGGREGATE MATERIAL
- A. MEDIUM AGGREGATE 34 OR 36 TO 14 INCH, CLEAN WASHED MEDIUM SIZED DRAIN GRAVEL WITH LESS THAN 5% PASSING THROUGH A #200 SIEVE.
- THE CONSTRUCTION DOCUMENTS MAKE NO REPRESENTATION OR WARRANTEES OF SOIL QUANTITIES. CONTRACTOR IS RESPONSIBLE FOR DETERMINING ALL QUANTITIES OF MATERIALS NECESSARY TO COMPLETE
- ALL NECESSARY IMPORTED SOIL MATERIALS AS SHOWN IN THE DESIGN DOCUMENTS SHALL BE SUPPLIED B THE CONTRACTOR. EXCESS ONSITE EXCAVATED MATERIAL STOCKPILED AND NOT USED ELSEWHERE ON THE PROJECT SHALL BE REMOVED FROM THE SITE AT THE END OF THE PROJECT AT THE CONTRACTOR'S EXPENSE.
- ALL SOFT, WET SOIL, OR SOIL OF UNUSUAL CONDITION SHALL BE EXCAVATED TO FIRM, NATURAL, UNDISTURBED SOIL, AND BACKFILLED WITH SPECIFIED FILL MATERIALS. BACKFILL AND COMPACT ALL OVER-EXCAVATED AREAS AS SPECIFIED FOR FILL BELOW AT NO ADDITIONAL COST TO THE OWNER.
- NATIVE, IN-SITU SOILS UNDERLYING PAVEMENTS OR STRUCTURAL FILL SHALL BE PROOF-ROLLED TO A UNIFORM DRY DENSITY OF 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D698).
- 10. STRUCTURAL FILL MATERIAL SUPPORTING PAVEMENT STRUCTURES SHALL BE PLACED IN LAYERS NOT EXCEEDING 8 INCHES IN COMPACTED THICKNESS. EACH LAYER OF STRUCTURAL FILL SHALL BE COMPACTED TO A UNIFORM DRY DENSITY OF 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D698). IT SHALL BE TESTED FOR COMPACTION AS CONSTRUCTION PROGRESSES. WATER CONTENT AT THE TIME OF COMPACTION SHALL BE WITHIN ±3 PERCENT OF OPTIMUM.
- 1. BASE COURSE AND LEVELING COURSE MATERIALS FOR PAVING AREAS SHALL BE COMPACTED TO 95 PERCENT OF THE MODIFIED PROCTOR DRY DENSITY (ASTM D698).

SECTION 31 34 00 - GEOTEXTILE FABRIC

- WOVEN OR NONWOVEN GEOTEXTILES SHALL BE COMPOSED OF LONG CHAIN, SYNTHÉTIC POLYMERIC FILAMENTS OR YARNS FORMED INTO A STABLE NETWORK THAT RETAINS ITS RELATIVE STRUCTURE DURING THE HANDLING AND PLACEMENT.
- 2. AT LEAST 95% BY WEIGHT OF THE LONG CHAIN POLYMERS SHALL BE A POLYOLEFIN OR POLYESTER.
- 3. GEOTEXTILES SHALL HAVE THE SELVEGE FINISHED SO THE OUTER FIBERS ARE PREVENTED FROM PULLING
- FABRICS SHALL MEET OR EXCEED THE PROPERTIES SPECIFIED IN THE FOLLOWING TABLE. IF THE FABRIC MANUFACTURER'S SUBMITTAL LISTS TYPICAL OR TYPICAL AVERAGE VALUES INSTEAD OF MINIMUM AVERAGE VALUES, THE REQUIRED VALUES IN THE TABLE BELOW WILL BE INCREASED 25%.

GEOTEXTILE PROPERTY	TEST METHOD	DRAINAGE	RIPRAP	SEDIMENT FENCE	SUBGRADE
FABRIC TYPE	_	NONWOVEN	WOVEN	WOVEN	WOVEN
MINIMUM GRAB TENSILE STRENGTH	ASTM D 4632	20 LB.	200 LB.	90 LB.	180 LB.
APPARENT OPENING SIZE	ASTM D 4751	NO. 70	NO. 70	NO. 30	NO. 30
MINIMUM PERMITTIVITY (S-1)	ASTM D 4491	0.5	0.5	0.05	0.01
MINIMUM UV RETAINED STRENGTH	ASTM D 4355		70%	70%	-
MINIMUM PUNCTURE STRENGTH	ASTM D 4833	35 LB.	80 LB.	_	80 LB.
MINIMUM GRAB ELOGATION	ASTM D 4632	15%	15%	_	-
MINIMUM		12"	24"	_	24"

SUBMITTALS: MANUFACTURES STANDARD DATA OF EACH TYPE OF GEOTEXTUAL FABRIC SPECIFIED FOR

SECTION 32 12 16 - ASPHALT CONCRETE PAVING

- HOT MIXED ASPHALT CONCRETE (HMAC): PROVIDE A HOT PLANT MIXED, UNIFORMLY COATED MIXTURE OF ASPHALT CEMENT, GRADED AGGREGATE, AND ADDITIVES CONFORMING TO OSSC SECTION 00745 FOR ALL PAVED AREAS IN THICKNESS INDICATED.
- A. LEVEL 2 HMAC HMAC FOR USE IN APPLICATIONS WITH LOW TRAFFIC VOLUMES AND LOW VOLUME B. LEVEL 3 HMAC HMAC FOR USE IN APPLICATIONS EXPOSED TOP MODERATE TRUCK TRAFFIC.
- ASPHALT CEMENT SHALL CONFORM TO SECTION 00745 OF THE OSSC SECTION 00745. THE ASPHAL CEMENT SHALL BE HEATED AND DELIVERED TO THE MIXER AT A TEMPERATURE RECOMMENDED BY THE ASPHALT MANUFACTURER FOR THE TEMPERATURE-VISCOSITY RELATIONSHIP OF THE CEMENT.
- PROVIDE AGGREGATE MATERIAL FOR HMAC AS SPECIFIED IN OSSC SECTION 00745.
- RECLAIMED ASPHALT PAVEMENT (RAP) MATERIAL: RECLAIMED HMAC PAVEMENT (RAP) MATERIAL USED IN THE PRODUCTION OF NEW HMAC IS OPTIONAL. NO MORE THAN 20% RAP MATERIAL WILL BE ALLOWED IN THE NEW HMAC PAVEMENT. RAP MATERIAL WILL NOT BE ALLOWED IN OPEN GRADED HMAC OR LEVEL 4 DENSE GRADED HMAC WEARING COURSES.
- MIX TYPE AND BROADBAND LIMITS: FURNISH THE TYPE(S) OF HMAC AS INDICATED. THE BROADBAND LIMITS FOR EACH OF THE MIX TYPES ARE SPECIFIED IN OSSC SECTION 00745.
- A. 1/2" DENSE GRADED MIX (TYPE C)
- PRIOR TO THE APPLICATION OF THE ASPHALTIC CONCRETE, APPLY A PRIME COAT OF LIQUID ASPHALT A THE RATE OF .25 GALLONS PER SQUARE YARD ON THE PREPARED COMPACTED BASE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. APPLY LIQUID ASPHALT BY PRESSURE DISTRIBUTORS. ALLOW SUFFICIENT TIME BEFORE PLACING THE ASPHALT CONCRETE TO PERMIT THE PRIME COAT ASPHALT TO PENETRATE THE PREPARED COMPACTED BASE.
- PLACE AND COMPACT ASPHALT CONCRETE PAVEMENT IN ACCORDANCE WITH THE OSSC SECTION 00745 FOR HMAC. THE MIXING PLANT AND CONSTRUCTION EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.
- CAREFULLY MAKE JOINTS BETWEEN OLD AND NEW PAVEMENTS OR BETWEEN SUCCESSIVE DAYS' WORK MADE IN SUCH MANNER AS TO INSURE A CONTINUOUS BOND BETWEEN OLD AND NEW SECTIONS OF THE COURSE. TRANSVERSE AND LONGITUDINAL JOINTS SHALL BE MADE AS SPECIFIED IN OSSC SECTION 00745. PAINT ALL JOINTS WITH A UNIFORM COAT OF TACK COAT BEFORE THE FRESH MIXTURE IS PLACED.
- 9. PERFORM DENSITY COMPACTION TESTS ON BASE COURSE PER SECTION 02315, EARTHWORK.
- 10. PERFORM DENSITY TESTING OF HMAC USING RANDOM TESTING METHOD SPECIFIED IN OSSC SECTION 00745. . PAVING OVERLAY FABRIC TABLE.

	1
GEOTEXTILE PROPERTY	VALUE
MINIMUM GRAB TENSILE STRENGTH IN BOTH MACHINE AND CROSS MACHINE DIRECTION	355 NEWTONS
MINIMUM GRAB	50%
MINIMUM ASPHALT RETENTION	0.9 LITERS/SQUARE METER
MINIMUM MELTING POINT	148*

SECTION 32 13 00 - SITE CONCRETE

- REINFORCING MATERIALS: ASTM A 615, GRADE 60, DEFORMED.
- JOINT DOWELL BARS: PLAIN STEEL BARS, ASTM A 615, GRADE 60. CUT BARS TRUE TO LENGTH WITH ENDS SQUARE AND FREE OF BURRS.
- A. PORTLAND CEMENT: ASTM C 150, TYPE I. USE ONE BRAND OF CEMENT THROUGHOUT PROJECT
- UNLESS OTHERWISE APPROVED IN WRITING BY OWNER'S REPRESENTATIVE. B. FLY ASH: ASTM C 618, TYPE F NORMAL-WEIGHT AGGREGATES: ASTM C 33, CLASS 4, AND AS FOLLOWS. PROVIDE AGGREGATES FROM

A SINGLE SOURCE. MAXIMUM AGGREGATE SIZE: 3/4 INCH. DO NOT USE FINE OR COARSE AGGREGATES

- WATER: POTABLE. AIR-ENTRAINING ADMIXTURE: ASTM C 260, CERTIFIED BY MANUFACTURER TO BE COMPATIBLE WITH OTHER REQUIRED ADMIXTURES.
- WATER-REDUCING ADMIXTURE: ASTM C 494, TYPE A.

THAT CONTAIN SUBSTANCES THAT CAUSE SPALLING.

CONCRETE MIX

- PREPARE DESIGN MIXES FOR EACH TYPE AND STRENGTH OF NORMAL-WEIGHT CONCRETE BY EITHER LABORATORY TRIAL BATCH OR FIELD EXPERIENCE METHODS AS SPECIFIED IN ACI 301. PROPORTION MIXES ACCORDING TO ACI 211.1 AND ACI 301 TO PROVIDE NORMAL-WEIGHT CONCRETE WITH THE FOLLOWING PROPERTIES:
- COMPRESSIVE STRENGTH (28-DAY): 3,500 PSI UNLESS OTHERWISE NOTED.
- MAXIMUM COURSE AGGREGATE SIZE: 3/4 INCH.
- MAXIMUM SLUMP: 4 INCHES PLUS 1/2 TO 1 INCH. E. ENTRAINED AIR: 5 PERCENT ± ½ TO 1 PERCENT.
- SUBMITTALS: DESIGN MIX FOR EACH CLASS OF CONCRETE. SUBMIT LABORATORY TEST RESULTS FOR EVULATION OF CONCRETE MATERALS AND MIX DESIGN TESTS.

SECTION 33 40 00- STORM DRAINAGE SYSTEM

A. USE PVC PIPE CONFORMING TO ASTM D3034, SDR 35, (4" TO 15") OR ASTM F679, PS 46. (18" TO 27").

METAL ITEMS

- A. METAL CATCH BASINS SHALL BE 10 GAUGE STEEL CATCH BASINS SPECIFIED FOR AASHTO H-20 HIGHWAY LOADING. INTERIOR COATED WITH ASPHALT COATING. MANUFACTURED BY LYNCH COMPANY OR APPROVED EQUAL
- INSTALL PVC PIPE AND FITTINGS IN ACCORDANCE WITH THE GENERAL REQUIREMENTS FOR INSTALLATION OF PIPELINES AND WITH THE REQUIREMENTS OF ASTM D2321 FOR LAYING AND JOINING PIPE AND FITTINGS. MAKE JOINTS WITH THE GASKETS PREVIOUSLY SPECIFIED JOINTS WITH THIS PIPING; ASSEMBLE THESE JOINTS IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D2321 FOR ASSEMBLE OF JOINTS. MAKE JOINTS TO OTHER PIPE MATERIALS IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PLASTIC PIPE MANUFACTURER.

SECTION 31 27 33 - EARTHWORK FOR UTILITIES

TRENCH FOUNDATION MATERIAL

THROUGH A #200 SIEVE.

- A. ON-SITE MATERIAL: NATIVE MATERIAL MAY BE USED AS TRENCH FOUNDATION IF IT IS FIRM, CLEAN,
- AND UNDISTURBED. B. IMPORTED MATERIAL: SELECTED NATURAL FILL MATERIAL FROM OFF-SITE BORROW SHALL CONSIST OF THE FOLLOWING OR A BLEND THEREOF WELL GRADED FREE DRAINING OR CRUSHED ROCK UP TO 11/2" IN MAXIMUM SIZE WITH NOT MORE THAN 5% OF FINES PASSING THROUGH A #200 SIEVE.

- A. IMPORTED MATERIAL: 3/4" MINUS WELL GRADED CRUSHED ROCK WITH LESS THAN 5% OF FINES
- PASSING THROUGH A #200 SIEVE. B. FINE AGGREGATE CLEAN WASHED SAND, 100% PASSING A #4 SIEVE WITH LESS THAN 5% PASSING

3. PIPE ZONE MATERIAL

- A. IMPORTED MATERIAL: 1/4" MINUS WELL GRADED CRUSHED ROCK WITH LESS THAN 5% OF FINES
- PASSING THROUGH A #200 SIEVE. B. IMPORTED MATERIAL: FINE AGGREGATE CLEAN WASHED SAND, 100% PASSING A #4 SIEVE WITH LESS THAN 5% PASSING THROUGH A #200 SIEVE.

4. TRENCH BACKFILL MATERIAL

- A. ON-SITE MATERIAL (NOT UNDER STRUCTURES OR PAVING): CLEAN, ON SITE NATIVE MATERIAL, IS SUITABLE FOR USE AS TRENCH BACKFILL MATERIAL IN AREAS NOT UNDER STRUCTURES OR PAVING IF IT CAN BE PLACED IN ACCORDANCE WITH THESE SPECIFICATIONS. EXCAVATED ONSITE NATIVE MATERIAL SHALL NOT BE USED AS TRENCH BACKFILL MATERIAL UNDER STRUCTURES OR PAVEMENTS. STOCK
- PILED ONSIDE EXCAVATED NATIVE MATERIAL USED AS GENERAL BACKFILL SHALL BE FREE OF ALL ORGANIC MATERIAL AND SHALL BE WITHIN 3% OF OPTIMUM MOISTURE CONTENT. IMPORTED MATERIAL (UNDER STRUCTURES OR PAVING): SELECTED NATURAL FILL MATERIAL FROM OFF-SITE BORROW SHALL CONSIST OF THE FOLLOWING OR A BLEND THEREOF WELL GRADED FREE DRAINING OR CRUSHED ROCK UP TO 11/2" IN MAXIMUM SIZE WITH NOT MORE THAN 5% OF FINES

5. Drainage aggregate material

PASSING THROUGH A #200 SIEVE.

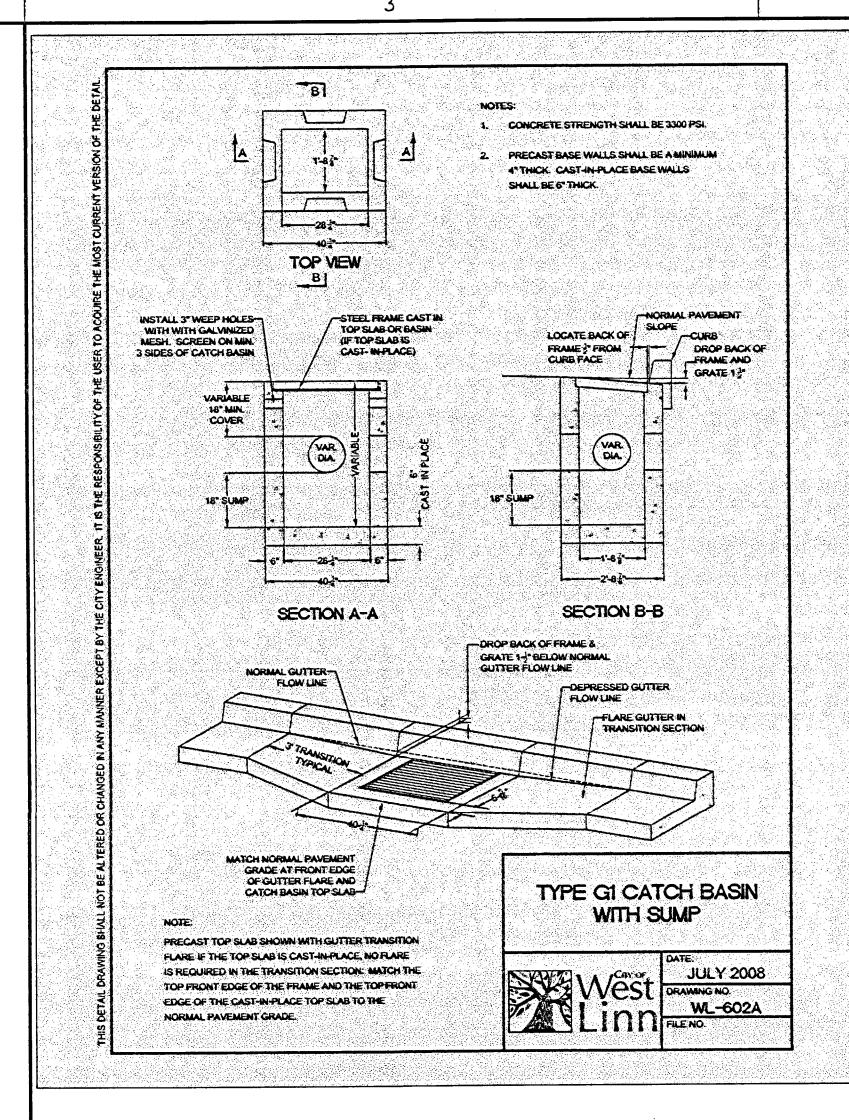
- 4. MEDIUM AGGREGATE ¾ OR ¾ TO ¼ INCH, CLEAN WASHED MEDIUM SIZED DRAIN GRAVEL WITH LESS THAN 5% PASSING THROUGH A #200 SIEVE.
- WHEN IN THE JUDGMENT OF THE OWNER, THE EXISTING MATERIAL IN THE BOTTOM OF THE TRENCH IS UNSUITABLE FOR SUPPORTING THE PIPE, EXCAVATE BELOW THE PIPE AS DIRECTED. PLACE BACKFILL IN TRENCH TO SUBGRADE OR PIPE BEDDING WITH TRENCH FOUNDATION MATERIAL OVER FULL WIDTH OF THE TRENCH AND COMPACT LAYERS NOT EXCEEDING 6 INCHES DEEP TO THE REQUIRED GRADE.
- PLACE SPECIFIED BEDDING MATERIAL IN AT LEAST TWO LIFTS. PLACE FIRST LIFT TO PROVIDE THE MINIMUM 6 INCH DEPTH OF BEDDING MATERIAL SHOWN ON THE PLAN BEFORE THE PIPE IS INSTALLED. SPREAD BEDDING SMOOTHLY TO PROPER GRADE SO THE PIPE IS UNIFORMLY SUPPORTED ALONG THE BARREL AND EXCAVATE BELL HOLES AT EACH JOINT TO PERMIT PROPER ASSEMBLY AND INSPECTION OF THE ENTIRE JOINT. PROVIDE FIRM UNYIELDING SUPPORT ALONG THE ENTIRE PIPE LENGTH
- PLACE SUBSEQUENT LIFTS OF NOT MORE THAN 6 INCHES IN THICKNESS UP TO THE HORIZONTAL CENTERLINE OF THE PIPE. BRING LIFTS UP TOGETHER ON BOTH SIDES OF THE PIPE AND CAREFULLY WORK UNDER THE PIPE BY SLICING WITH A SHOVEL OR OTHER APPROVED PROCEDURE. PAY PARTICULAR ATTENTION TO THE AREA FROM THE FLOW LINE TO THE HORIZONTAL CENTERLINE OF THE PIPE OR TOP OF BEDDING TO INSURE THAT FIRM SUPPORT IS OBTAINED TO PREVENT ANY LATERAL MOVEMENT OF THE PIPE DURING THE FINAL BACKFILLING OF THE PIPE ZONE. PLACE PIPE BEDDING FULL WIDTH OF TRENCH.
- PLACE SPECIFIED PIPE ZONE MATERIAL CAREFULLY AROUND THE PIPE IN 6 INCH LAYERS AND THOROUGHLY HAND TAMP WITH APPROVED STICKS SUPPLEMENTED BY WALKING IN AND SLASHING WITH A SHOVEL PREVENT PIPE FROM MOVING EITHER HORIZONTALLY OR VERTICALLY DURING PLACEMENT AND COMPACTION OF THE PIPE ZONE MATERIAL MECHANICAL COMPACTORS ARE PROHIBITED FOR PLACEMENT OF
- O. BACKFILL TRENCH ABOVE THE PIPE ZONE TO WITHIN 8 INCHES OF THE FINAL SURFACE GRADE SHOWN ON THE PLANS IN LIFTS NOT TO EXCEED 8 INCHES OF LOOSE DEPTH. IN UNPAVED AREAS, COMPACT EACH LIFT TO MINIMUM 92% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 WITH MECHANICAL VIBRATORS OR IMPACT TAMPERS. COMPACT TRENCH AREAS AT PAVING AND INSIDE BUILDING AREAS TO 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D1557.
- WHEN TEMPORARY STEEL PLATES ARE INSTALLED OVER A STREET CUT, THEY SHALL BE CAPABLE OF CARRYING AT LEAST AN MS-18 LOADING. PLACE STEEL PLATES WITH A MINIMUM OF 12 INCHES BEARING ON ALL SIDES OF A CUT. ANCHOR STEEL PLATES TO MINIMIZE SHIFTING. SHIM THE EDGES OF ALL STEEL PLATES WITH COLD MIX ASPHALT.
- 12. ALL RIPRAP MATERIAL SHALL MEET THE TEST REQUIREMENTS OF OSSC, SECTION 00390 RIPRAP PROTECTION.
- 13. RIPRAP MATERIAL SHALL BE ANGULAR IN SHAPE. THE THICKNESS OF A SINGLE ROCK SHALL NOT BE LESS THAN IS ITS LENGTH. ROUNDED ROCK WILL NOT BE ACCEPTED. RIPRAP SHALL BE FREE FROM OVERBURDEN, SPOIL, SHALE AND ORGANIC MATERIAL. NON-DURABLE ROCK OR SHALE IS NOT ACCEPTABLE.

14. GRADATION REQUIREMENTS SHALL BE AS FOLLOWS:

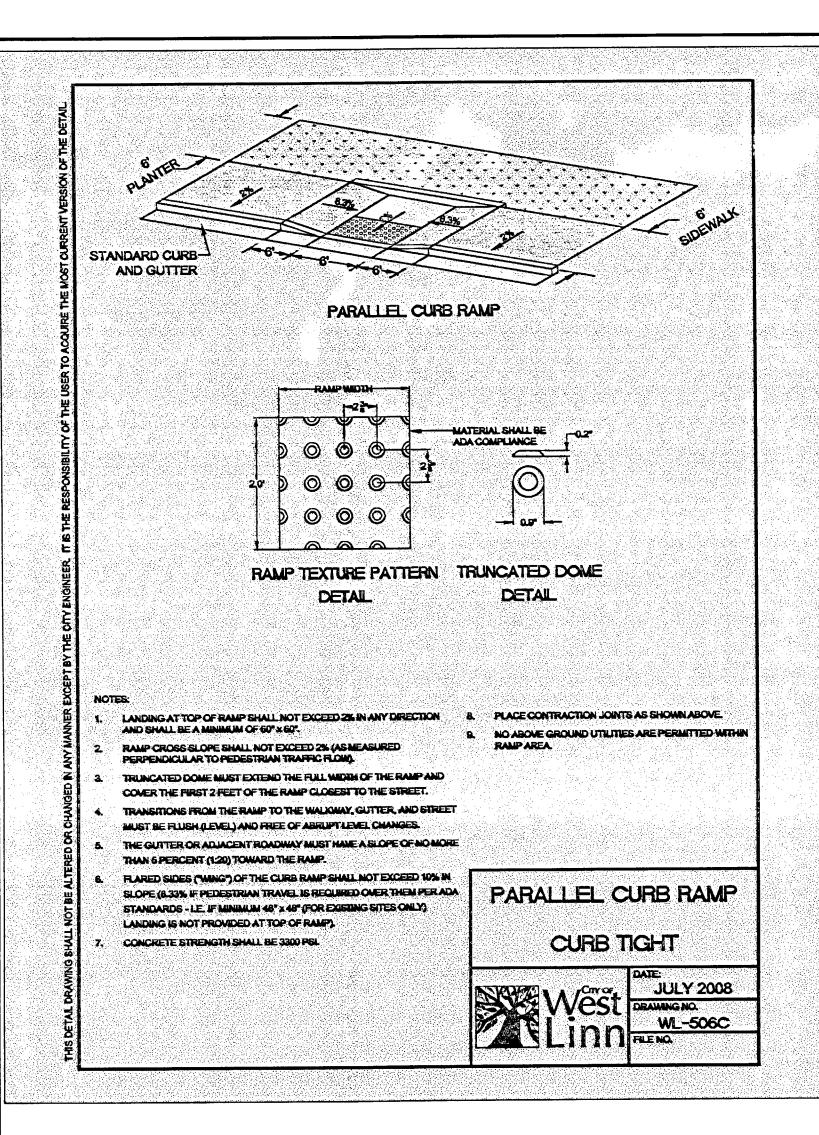
PERCENT BY WEIGHT	WEIGHT OF ROCK				
	CLASS 50	CLASS 100	CLASS 200		
20.0	50 - 30	100 - 60	200 - 140		
30.0	30 - 15	60 - 25	140 - 80		
40.0	15 - 2	25 - 2	80 - 8		
10.0	2 - 0	2 - 0	8 - 0		

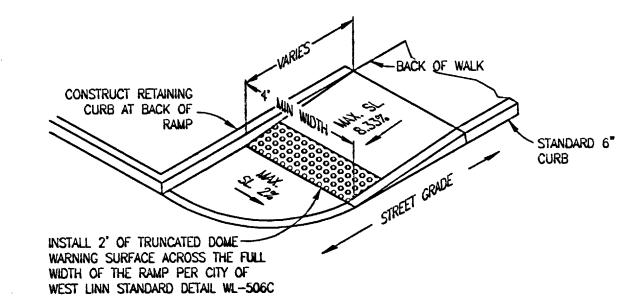
SECTION 31 25 00 - SLOPE PROTECTION & EROSION CONTROL

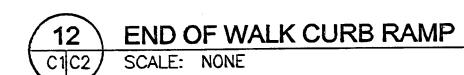
- PROVIDE SEDIMENT FENCE GEOTEXTILE PER SECTION 02350, "GEOTEXTILE FABRICS." SUPPORTING WIRE MESH SHALL BE 2 MILLIMETER GAUGE STEEL WIRE MESH WITH 2" X 2" OPENINGS. A PERFORATED POLYMERIC MESH OF EQUIVALENT GRAP TENSILE STRENGTH IN ACCORDANCE WITH ASTM D4632 MAY BE SUBSTITUTED FOR THE STEEL WIRE MESH.
- BIO-FILTER BAGS FILL MATERIAL SHALL BE CLEAN 100% RECYCLED WOOD PRODUCT WASTE. SIZE OF BAG SHALL BE GENERALLY 18" X 6" X 30" PLASTIC MESH BAGS WITH 1/2" OPENINGS AND WEIGH APPROXIMATELY 45 POUNDS.

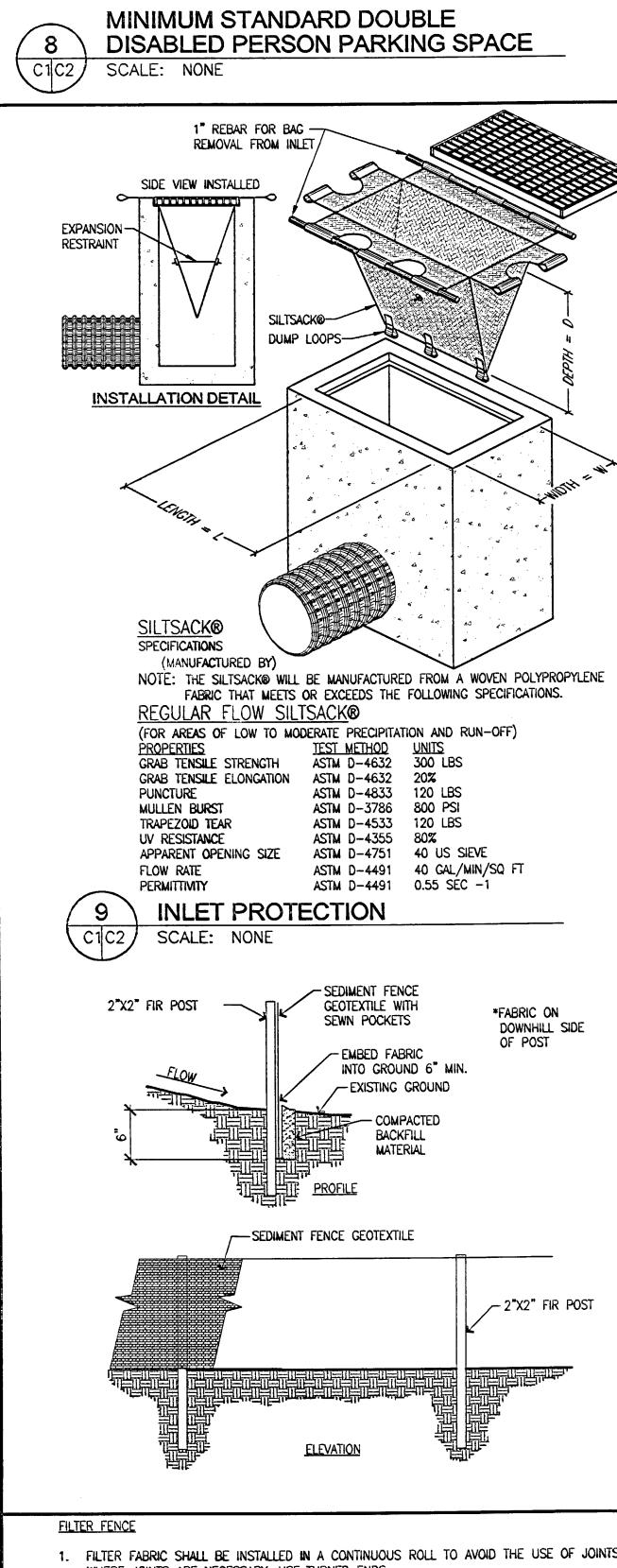












STRIPING & PAVEMENT

STENCIL REQUIRED

- WHITE STRIPES

MATCH EXISTING

- PAVEMENT STENCIL

WHITE WITH BLUE

BACKGROUND TYPICAL

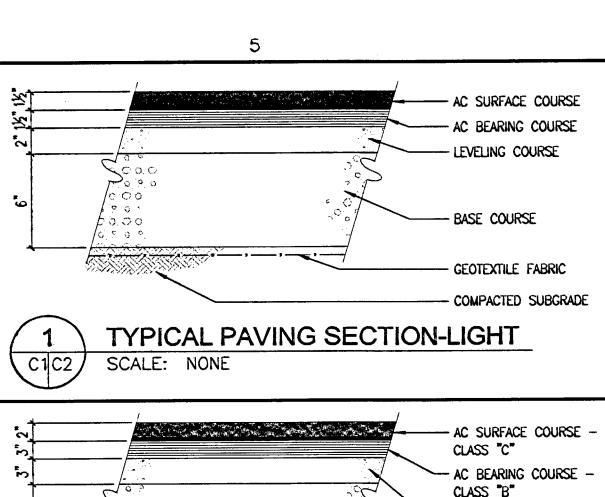
BLUE PAINTED CURB

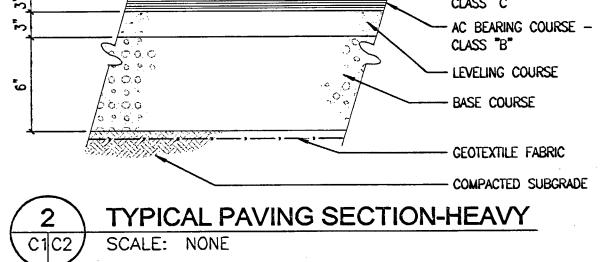
24" MIN.

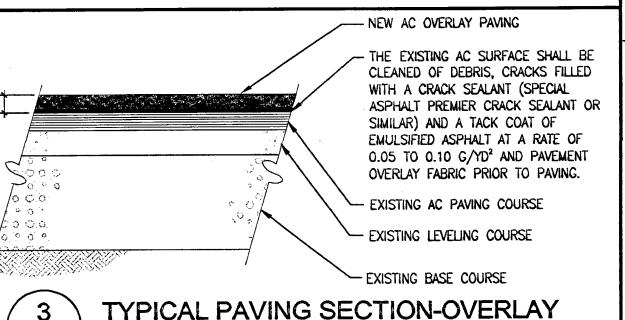
MATCH EXISTING

- 1. FILTER FABRIC SHALL BE INSTALLED IN A CONTINUOUS ROLL TO AVOID THE USE OF JOINTS. WHERE JOINTS ARE NECESSARY, USE TURNED ENDS.
- 2. POSTS SHALL BE SPACED A MAXIMUM OF 6' APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 6".
- 3. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4" WIDE AND 6" DEEP ALONG THE LINE OF POSTS UPHILL FROM THE BARRIER. TRENCH SHALL FOLLOW THE CONTOUR.
- 4. TRENCH SHALL BE BACKFILLED WITH NATIVE MATERIAL.
- 5. INSPECT AND REPAIR AFTER EACH RAINFALL. INSPECT DAILY DURING PROLONGED RAINFALL. 6. REMOVE SEDIMENT WHEN IT REACHES APPROXIMATELY ONE THIRD THE HEIGHT ABOVE GROUND PORTION OF THE FENCE.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE FILTER FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE AND SEEDED. EXISTING GRADE AND SEEDED.
- 8. WHEN JOINING TWO OR MORE SEDIMENT FENCES TOGETHER, JOIN JOIN STAKES BY UNWRAPPING THE ENDS AT LEAST TWO TURNS AND DRIVING THE JOINED STAKES INTO THE GROUND TOGETHER.

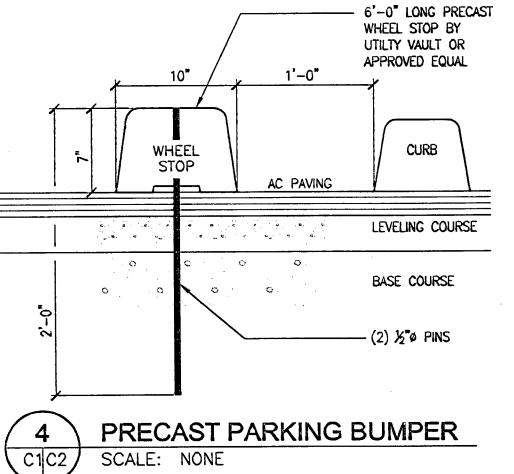
SEDIMENT FENCE DETAIL SCALE: NONE

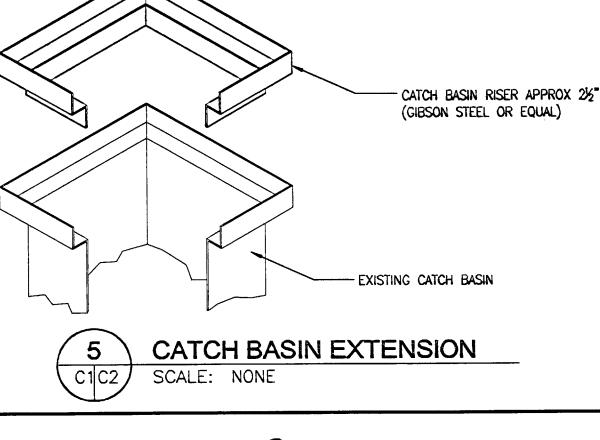


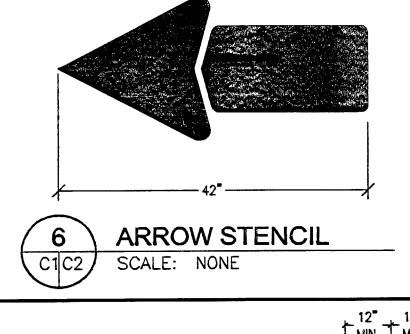


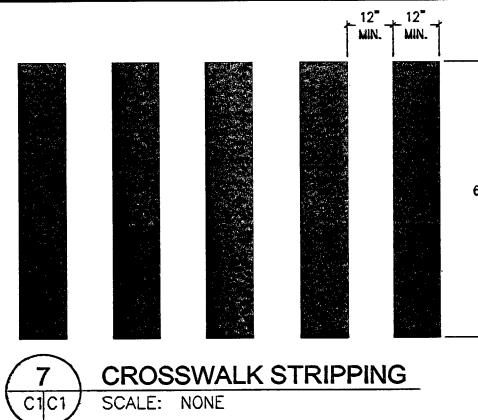


TYPICAL PAVING SECTION-OVERLAY SCALE: NONE









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SHEET 2 OF 3

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