MASS GRADING PLANS

FOR

SPANGLER PARCEL

ROMEOVILLE, ILLINOIS **PIZZUTI**

LECENID

PROPOSED	DESCRIPTION	EXISTING
—(——(—	STORM SEWER	
8W	WATER MAIN WITH SIZE	W
──	SANITARY SEWER	——————————————————————————————————————
	RIGHT-OF-WAY	
 842	CONTOUR	701
805.25 ×	SPOT GRADE	+ 701.30
(a)	SANITARY MANHOLE	©
	STORM MANHOLE	©
	STORM INLET	
•	STORM CATCH BASIN	\circ
	FIRE HYDRANT	Ø
•	PRESSURE CONNECTION	\oplus
•	GATE VALVE W/VAULT	•
- -	STREET LIGHT	
×	STREET LIGHT W/MAST	•——
←	OVERFLOW DIRECTION	
	CURB & GUTTER	
xx	SILT FENCE	
b	ROAD SIGN	0
— UGE —	UNDERGROUND ELECTRIC	—E—
— G —	UNDERGROUND GAS	— G
0	UTILITY POLE	\circ
	DEPRESSED CURB FOR RAMP/DRIVEWAY	
TF	TOP OF FOUNDATION	
GF	GARAGE FLOOR, AT REAR OF GARAGE	
TD	TOP OF CURB, DEPRESSED	
TW	TOP OF RETAINING WALL	
R=	RIM FOR STRUCTURES	
R	RISER FOR SANITARY SERVICE	
HWL/NWL	HIGH/NORMAL WATER LEVEL	
T	TRANSFORMER	
X	FENCE LINE	X
	GUARD RAIL	
─	FORCE MAIN	
	UNDERGROUND TELEPHONE	T
	UNDERGROUND ELECTRIC	———— E———
	OVERHEAD ELECTRIC	———— OHE———

WARNING Know what's **below**. Call before you dig. (48 HOURS NOTICE REQUIRED PRIOR TO DIGGING)

	PERMITS	
DATE	PERMIT #	AGENCY
4/22/15	ILR106769	NPDES

BASIS OF BEARINGS

NAD 83, ILLINOIS STATE PLANE, EAST ZONE (1201)

ELEVATIONS ARE TIED TO WILL COUNTY DATUM (NAVD88)

REFERENCE BENCHMARK:

WILL COUNTY STATION 403: 3—D MARKER ON THE SOUTH SIDE OF ROMEO ROAD 0.25 MILES WEST OF THE INTERSECTION OF IL. ROUTE 53 AND ROMEO ROAD. ELEVATION=628.26

WILL COUNTY STATION 421: 3-D MARKER NEAR THE INTERSECTION OF RENWICK ROAD (IL. RTE. 7) AND OLD RENWICK ROAD. (SEE DATA SHEET FOR A MORE DETAILED DESCRIPTION.) ELEVATION=647.34

SITE BENCHMARKS:

BM1 (JHA CP28): "X" CUT IN NORTH TOP OF CURB OF TAYLOR ROAD OPPOSITE 6TH FIRE HYDRANT EAST OF "T" INTERSECTION. ELEVATION=632.35

BM2 (JHA CP31): "X" CUT IN NORTH TOP OF CURB OF TAYLOR ROAD OPPOSITE 12TH FIRE HYDRANT EAST OF "T" INTERSECTION.

EXISTING INFORMATION OBTAINED FROM TOPOGRAPHICAL SURVEY PREPARED BY JACOB AND HEFNER ASSOCIATES, DATED MAY 20, 2014.

DRAWING INDEX

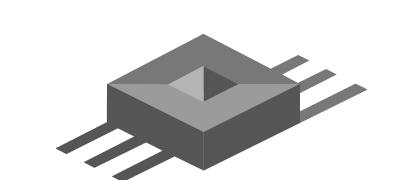
SHEET	TITLE
C1 C2 C3 C4 C4-C8 C9-C12 C13 C14 C15	COVER SHEET GENERAL NOTES & TYPICAL SECTIONS EXISTING CONDTIONS & DEMOLITION PLAN OVERALL MASS GRADING PLAN MASS GRADING PLANS EROSION CONTROL PLANS STORMWATER POLLUTION PREVENTION PLAN EROSION CONTROL DETAILS SPECIFICATIONS & DETAILS

DRAINAGE CERTIFICATE

I, JASON SNYDER, HEREBY CERTIFY THAT ADEQUATE STORM WATER STORAGE AND DRAINAGE CAPACITY HAS BEEN PROVIDED FOR THIS DEVELOPMENT, SUCH THAT SURFACE WATER FROM THIS DEVELOPMENT WILL NOT BE DIVERTED ONTO AND CAUSE DAMAGE TO ADJACENT PROPERTY FOR STORMS UP TO AND INCLUDING THE ONE HUNDRED (100) YEAR EVENT, AND THAT THE DESIGN PLANS ARE IN COMPLIANCE WITH ALL APPLICABLE STATE, COUNTY, AND VILLAGE ORDINANCES.

0 /7 /45	VIII AOE OOMMENTO	
6/3/15	VILLAGE COMMENTS	2
5/13/15	ISSUE FOR REVIEW	1
Date	Description	No.
_	ISSUE FOR REVIEW Description REVISION:	1 No.

ENGINEER JASON J. SNYDER JSNYDER@JACOBANDHEFNER.COM	DATE
ILLINOIS REGISTRATION NO. 062-05 EXPIRES 11/30/2015	55425
ENGINEER ONLY CERTIFIES SHEETS	
THIS PLANS OR ANY PART THERE OF SHALL E WITHOUT THE ORIGINAL SIGNATURE, IMPRESSED OF SEAL OF THE ENGINEER AND MARKED "FOF	SEAL, EXPIRATION DATE



JACOB & HEFNER ASSOCIATES

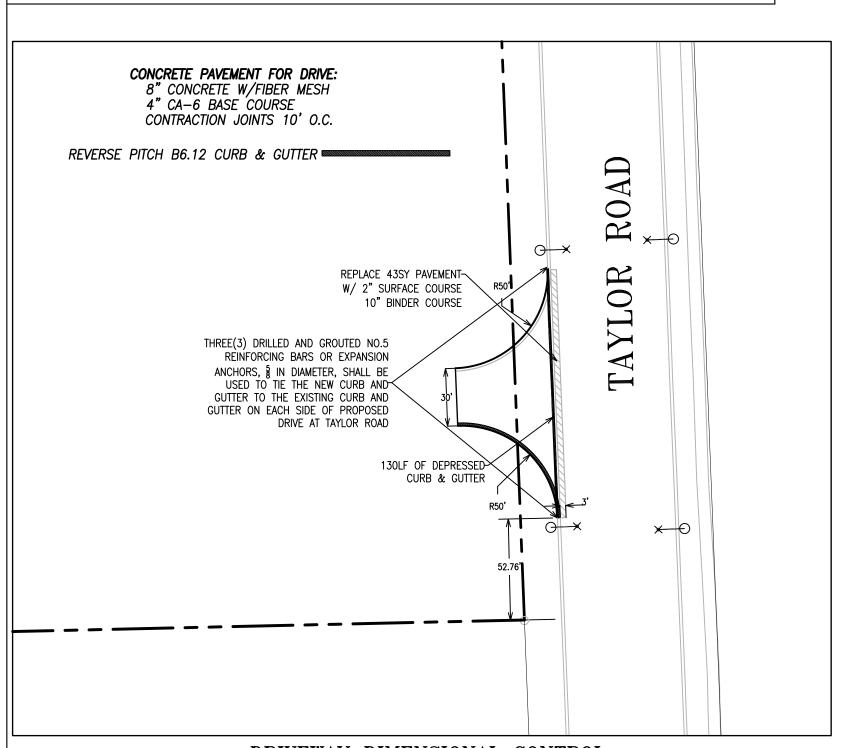
1910 S. Highland Avenue, Suite 100, Lombard, IL 60148 PHONE: (630) 652-4600, FAX: (630) 652-4601 www.jacobandhefner.com

Municipality: ROMEOVILLE Township: 36N County: WILL Section: 9

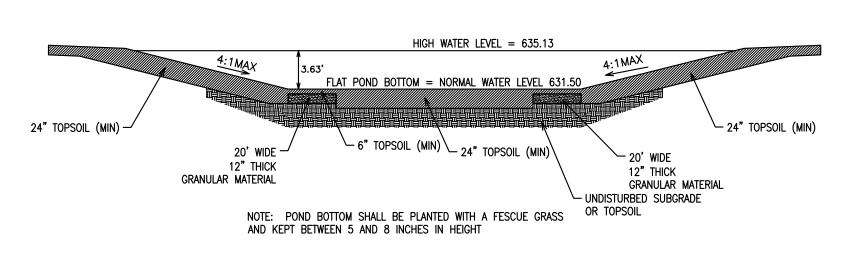
FOR REVIEW PURPOSES ONLY

- 2. ALL STORM SEWER, SANITARY SEWER AND WATER MAIN CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION, AND IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS OF THE MUNICIPALITY UNLESS OTHERWISE NOTED ON THE PLANS.
- 3. STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, CONSTRUCTION PLANS, AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE CONSIDERED A PART OF THIS CONTRACT.
- 4. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE UTILITY COMPANIES LOCATE THEIR FACILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL ALSO BE RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF THESE FACILITIES. THE ENGINEER DOES NOT WARRANT THE LOCATION OF ANY EXISTING UTILITIES SHOWN ON THE PLAN. THE CONTRACTOR SHALL CALL J.U.L.I.E. AT 800-892-0123, AND THE MUNICIPALITY FOR UTILITY LOCATIONS.
- 5. NO CONSTRUCTION PLAN SHALL BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY MARKED "FOR CONSTRUCTION." PRIOR TO COMMENCEMENT OF CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THE WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IN ADDITION, THE CONTRACTOR MUST VERIFY THE SURVEYOR'S LINE AND GRADE STAKES. IF THERE ARE ANY DISCREPANCIES WITH WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT SAME TO ENGINEER BEFORE DOING ANY WORK, OTHERWISE THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSIONS OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTIONS ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.
- 6. NOTIFICATION OF COMMENCING CONSTRUCTION
- A. EACH CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR AND THE AFFECTED GOVERNMENTAL AGENCIES IN WRITING AT LEAST THREE FULL WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL NOTIFY AS NECESSARY, ALL TESTING AGENCIES, EITHER VILLAGE'S OR THE OWNER'S, SUFFICIENTLY IN ADVANCE OF CONSTRUCTION.
- B. FAILURE OF CONTRACTOR TO ALLOW PROPER NOTIFICATION TIME WHICH RESULTS IN TESTING COMPANIES TO BE UNABLE TO VISIT SITE AND PERFORM TESTING WILL CAUSE CONTRACTOR TO SUSPEND OPERATION (PERTAINING TO TESTING) UNTIL TESTING AGENCY CAN SCHEDULE TESTING OPERATIONS. COST OF SUSPENSION OF WORK TO BE BORNE BY CONTRACTOR.
- 7. EACH CONTRACTOR SHALL KEEP ACCESS AVAILABLE AT ALL TIMES FOR ALL TYPES OF TRAFFIC. AT NO TIME SHALL ACCESS IS DENIED TO PROPERTIES SURROUNDING THE SITE.
- 8. ALL PROPOSED ELEVATIONS SHOWN ON THE PLANS ARE FINISHED SURFACE ELEVATIONS, UNLESS OTHERWISE SPECIFIED.
- 9. EACH ONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES UNTIL THEY ARE NO LONGER NEEDED. ANY STAKES DESTROYED OR DISTURBED BY THE CONTRACTOR PRIOR TO THEIR USE SHALL BE RESET BY THE PROJECT'S SURVEYOR AT CONTRACTOR'S COST.
- 10. ALL FRAMES AND LIDS FOR STORM AND SANITARY SEWER STRUCTURES ARE TO BE ADJUSTED TO MEET FINAL FINISH GRADE. THIS ADJUSTMENT IS TO BE MADE BY THE SEWER CONTRACTOR AND THE COST IS TO BE CONSIDERED INCIDENTAL. THESE ADJUSTMENTS TO FINISHED GRADE WILL NOT ALLEVIATE THE CONTRACTOR FROM ANY ADDITIONAL ADJUSTMENTS AS REQUIRED BY THE VILLAGE UPON FINAL INSPECTION OF THE PROJECT. FINAL GRADES TO BE DETERMINED BY THE VILLAGE AT THE TIME OF FINAL INSPECTION AND MAY VARY FROM PLAN GRADE.
- 11. ANY EXISTING SIGNS, LIGHT STANDARDS AND UTILITY POLES WHICH INTERFERE WITH CONSTRUCTION OPERATIONS AND NOT NOTED FOR DISPOSAL SHALL BE REMOVED AND RESET BY THE CONTRACTOR AT HIS OWN EXPENSE AS DIRECTED BY THE ENGINEER. ANY DAMAGE TO THESE ITEMS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE TO THE SATISFACTION OF THE OWNER. ANY SIGNS NOT REQUIRED TO BE RESET, SHALL BE DELIVERED TO THE RESPECTIVE OWNERS.
- 12. REMOVAL OF SPECIFIED ITEMS, INCLUDING BUT NOT LIMITED TO, PAVEMENT, SIDEWALK, CURB, CURB AND GUTTER, CULVERTS, ETC. SHALL BE DISPOSED OF OFF—SITE BY THE CONTRACTOR AT HIS OWN EXPENSE. HE IS RESPONSIBLE FOR ANY PERMIT REQUIRED FOR SUCH DISPOSAL.
- 13. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER SYSTEM OR SHALL BE RESTORED TO PROPER OPERATING CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE OR DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE CONTRACTOR AND TURNED OVER TO THE ENGINEER UPON COMPLETION OF THE PROJECT. THE COST OF THIS WORK SHALL BE CONSIDERED AS INCIDENTAL TO THE SUBCONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 14. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF 12 MONTHS FROM THE DATE OF FINAL ACCEPTANCE OF THE PROJECT AND THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DEFECTS IN MATERIALS AND WORKMANSHIP OF WHATEVER NATURE DURING THAT PERIOD.
- 15. BEFORE ACCEPTANCE BY THE OWNER AND FINAL PAYMENT, ALL WORK SHALL BE INSPECTED BY THE OWNER OR HIS REPRESENTATIVE. FINAL PAYMENT WILL BE MADE AFTER ALL THE CONTRACTOR'S WORK HAS BEEN APPROVED AND ACCEPTED.
- 16. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHTS—OF—WAY ARE SHOWN ON THE PLANS ACCORDING TO KNOWN AVAILABLE RECORDS. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT WITH LOCATIONS OF THE NEW CONSTRUCTION, JACOB AND HEFNER ASSOCIATES, INC. IS RESPONSIBLE TO RESOLVE THE CONFLICT. JACOB AND HEFNER ASSOCIATES, INC. IS NOT RESPONSIBLE FOR THE COST OF CONSTRUCTION.
- 17. OWNER SHALL OBTAIN EASEMENTS AND PERMITS NECESSARY TO FACILITATE CONSTRUCTION OF THE PROPOSED UTILITIES. THE CONTRACTORS, HOWEVER, SHALL FURNISH EVIDENCE OF INSURANCE NECESSARY TO SECURE THESE PERMITS.
- 18. THE CONTRACTORS SHALL PLAN THEIR WORK BASED ON THEIR OWN BORINGS, EXPLORATIONS AND OBSERVATIONS TO DETERMINE SOIL CONDITIONS AT THE LOCATION OF THE PROPOSED WORK.
- 19. EACH CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SAFETY ON THE JOB RELATINING TO THEIR SCOPE OF WORK IN ACCORDANCE WITH OSHA REGULATIONS.
- 20. EACH CONTRACTOR SHALL COLLECT AND REMOVE ALL CONSTRUCTION DEBRIS, INCLUDING THE REMOVAL OF STAKES, LATHE, ETC. SET BY SURVEYORS FOR CONSTRUCTION PURPOSES, EXCESS MATERIALS, TRASH, OIL AND GREASE RESIDUE, MACHINERY, TOOLS AND OTHER MISCELLANEOUS ITEMS WHICH WERE NOT PRESENT PRIOR TO PROJECT COMMENCEMENT AT NO ADDITIONAL EXPENSE TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY AND ALL PERMITS NECESSARY FOR THE HAULING AND DISPOSAL REQUIRED FOR CLEAN—UP AS DIRECTED BY THE ENGINEER OR OWNER. BURNING ON THE SITE IS NOT PERMITTED.
- 21. IT SHALL BE EACH CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE PROPER BARRICADING, WARNING DEVICES AND THE SAFE MANAGEMENT OF TRAFFIC AND PEDESTRIANS WITHIN THE AREA OF THEIR CONSTRUCTION. ALL SUCH DEVICES AND THEIR INSTALLATION SHALL CONFORM TO THE ILLINOIS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS, LATEST EDITION AND IN CONFORMANCE WITH THE REGULATIONS OF THE MUNICIPALITY OR D.O.T.
- 22. NO UNDERGROUND WORK SHALL BE COVERED UNTIL IT HAS BEEN APPROVED BY THE VILLAGE. APPROVAL TO PROCEED MUST BE OBTAINED FROM THE VILLAGE PRIOR TO INSTALLING PAVEMENT BASE, BINDER, SURFACE AND PRIOR TO POURING ANY CONCRETE AFTER FORMS HAVE BEEN SET.
- 23. ALL EXISTING UTILITIES OR IMPROVEMENTS, INCLUDING WALKS, CURBS, PAVEMENT AND PARKWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE PROMPTLY RESTORED TO THEIR RESPECTIVE ORIGINAL CONDITION.
- 24. AT THE CLOSE OF EACH WORKING DAY AND AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS.

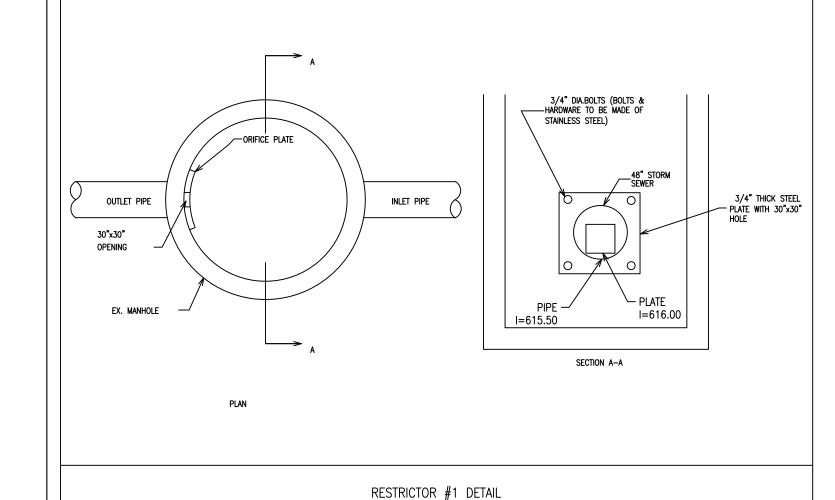
- 25. TREES NOT MARKED FOR REMOVAL SHALL BE CONSIDERED AS DESIGNATED TO BE SAVED AND SHALL BE PROTECTED UNDER THE PROVISIONS OF ARTICLE 201.05 OF THE STANDARD SPECIFICATIONS.
- 26. LIMB PRUNING SHALL BE PERFORMED UNDER THE SUPERVISION OF AN APPROVED LANDSCAPE ARCHITECT AND SHALL BE UNDERTAKEN IN A TIMELY FASHION SO AS NOT TO INTERFERE WITH CONSTRUCTION.
- 27. ALL LIMBS, BRANCHES, AND OTHER DEBRIS RESULTING FROM THIS WORK SHALL BE DISPOSED OF OFF-SITE BY THE SUBCONTRACTOR AT HIS OWN EXPENSE.
- 28. ALL CUTS OVER 1" IN DIAMETER SHALL BE MADE FLUSH WITH THE NEXT LARGE BRANCH. WOUNDS OVER 1" IN DIAMETER SHALL BE PAINTED WITH AN APPROVED TREE PAINT.
- 29. ANY DEWATERING OF SEWER AND WATER TRENCHES AS WELL AS TEMPORARY SHEETING OR BRACING THAT MAY BE REQUIRED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT BE CONSIDERED EXTRA WORK. IN THE EVENT THAT SOFT MATERIALS WITH UNCONFINED COMPRESSIVE STRENGTH LESS THAN 0.5 TSF ARE ENCOUNTERED IN SEWER AND WATER MAIN CONSTRUCTION, THE CONTRACTOR SHALL (UPON APPROVAL OF THE OWNER AND/OR ENGINEER) OVER—EXCAVATE TO A DEPTH OF ONE (1) FOOT BELOW THE BOTTOM OF THE PIPE AND BACKFILL WITH COMPACTED CRUSHED STONE, PROPERLY FORMED TO FIT THE BOTTOM OF THE PIPE.
- 30. CONTRACTOR SHALL VIDEO TAPE WORK AREA PRIOR TO CONSTRUCTION FOR THE PURPOSE OF DOCUMENTING EXISTING CONDITIONS.
- 31. TRENCH BACKFILL WILL BE REQUIRED TO THE FULL DEPTH ABOVE ALL UNDERGROUND UTILITIES WITHIN TWO FEET OF PROPOSED OR EXISTING PAVEMENTS, UTILITIES, AND SIDEWALKS. THE TRENCH BACKFILL SHALL BE DONE IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS. THE TRENCH BACKFILL AND BEDDING MATERIAL SHALL CONSIST OF CRUSHED GRAVEL CONFORMING TO IDOT GRADATION CA-7.
- 32. WHERE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, EXISTING DRAINAGE STRUCTURES AND SYSTEMS SHALL BE CLEANED OF DEBRIS AND PATCHED AS NECESSARY TO ASSURE INTEGRITY OF THE STRUCTURE. WHICH SHALL BE PAYMENT IN FULL FOR CLEANING, PATCHING, REMOVAL AND DISPOSAL OF DEBRIS AND DIRT. DRAINAGE STRUCTURES AND SEWERS CONSTRUCTED AS PART OF THIS CONTRACT SHALL BE MAINTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- 33. HYDRANTS SHALL NOT BE FLUSHED DIRECTLY ON THE ROAD SUBGRADES. WHEREVER POSSIBLE, HOSES SHALL BE USED TO DIRECT THE WATER INTO STORM SEWERS. DAMAGE TO THE ROAD SUBGRADE OR LOT AREAS DUE TO EXCESSIVE WATER SATURATION AND/OR EROSION FROM HYDRANT FLUSHING OR FROM LEAKS IN THE WATER DISTRIBUTION SYSTEM, WILL BE THE RESPONSIBILITY OF THE CONTRACTOR FLUSHING OR USING HYDRANT TO MAKE ALL NECESSARY REPAIRS AT HIS EXPENSE. THE CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION WATER AT HIS EXPENSE.
- 34. AS THE STORM SEWER SYSTEM IS CONSTRUCTED THE CONTRACTOR SHALL PLACE EROSION CONTROL AT LOCATIONS SHOWN ON THE PLANS OR AS SELECTED IN THE FIELD BY THE ENGINEER. THE PURPOSE OF THE EROSION CONTROL WILL BE TO MINIMIZE THE AMOUNT OF SILTATION, WHICH NORMALLY WOULD ENTER THE STORM SEWER SYSTEM FROM ADJECENT AND/OR UPSTREAM DRAINAGE AREAS.
- 35. EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH ILLINOIS URBAN MANUAL; AND SHALL BE MAINTAINED BY THE SUBCONTRACTOR AND SHALL REMAIN IN PLACE UNTIL A SUITABLE GROWTH OF GRASS ACCEPTABLE TO THE ENGINEER HAS BEEN DEVELOPED.
- 36. EACH CONTRACTOR SHALL PROVIDE ONE MYLAR AND REQUIRED COPIES OF "RECORD DRAWINGS" TO THE VILLAGE AND OWNER PRIOR TO ANY REQUEST FOR FINAL INSPECTION. SAID PLANS SHALL INDICATE THE FINAL LOCATION AND LAYOUT OF ALL IMPROVEMENTS, INCLUDE VERIFICATION OF ALL BUILDING PADS, TOP OF FOUNDATION, INVERT, RIM, AND SPOT GRADE ELEVATIONS, LOCATION OF ALL WATER SERVICE B-BOXES, SANITARY SERVICES, AND STORM SERVICES AND INCORPORATE ALL FIELD DESIGN CHANGES APPROVED BY THE VILLAGE AND SIGNED BY A PROFESSIONAL LAND SURVEYOR.
- 37. AN ON-SITE GEOTECHNICAL ENGINEER WILL BE RETAINED TO MONITOR EARTHWORK AND GRADING ACTIVITY, IN ORDER TO IDENTIFY UNSUTABLE SOILS FOR REMOVAL FROM THE SITE.

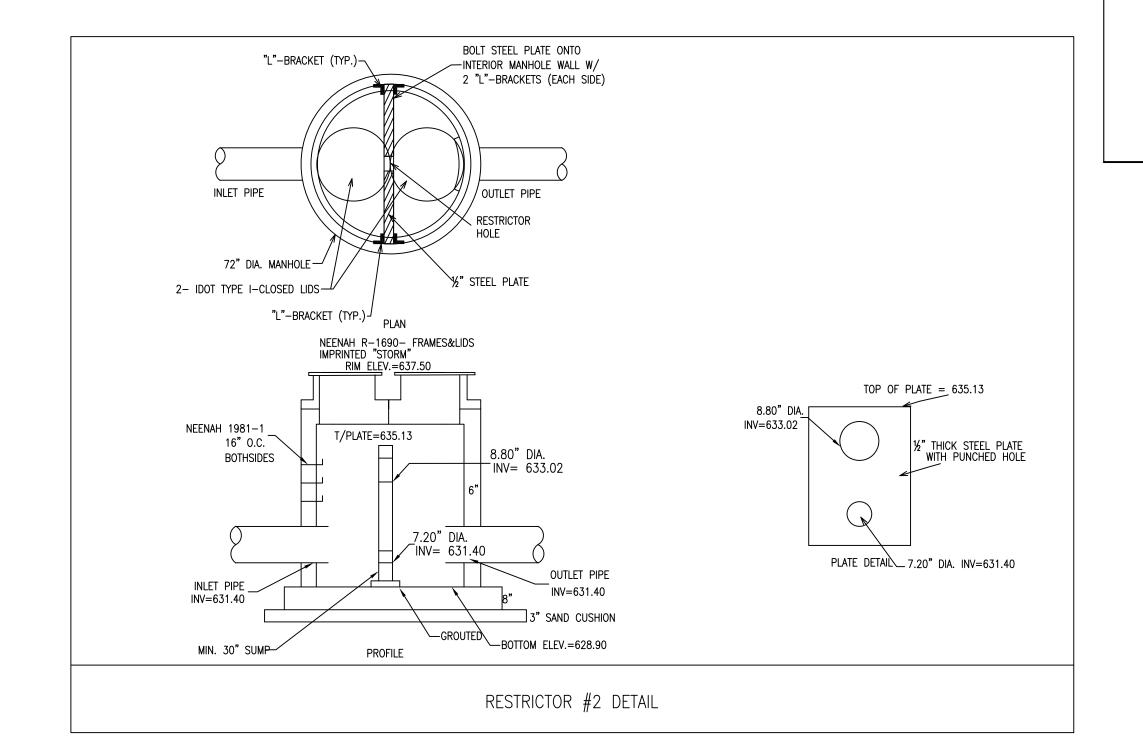


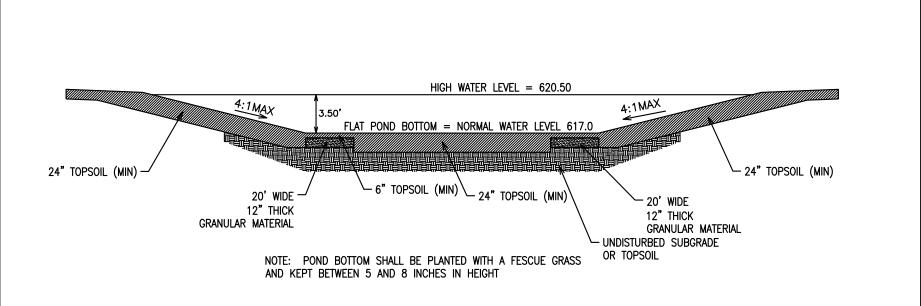
DRIVEWAY DIMENSIONAL CONTROL SCALE: 1"=50'



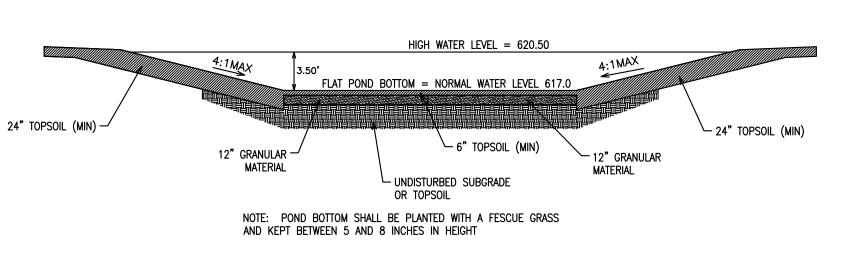
TYPICAL SECTION SOUTHEAST DETENTION POND







TYPICAL SECTION WEST DETENTION POND



TYPICAL SECTION NORTH DETENTION POND

CONTACTS

VILLAGE OF ROMEOVILLE CONTACT:

MR. JONATHAN ZABROCKI, P.E. C/O VILLAGE OF ROMEOVILLE 1050 WEST ROMEO ROAD ROMEOVILLE, IL 60446 PH: (815) 886-1870

ENGINEER:
JASON SNYDER, P.E.
JACOB & HEFNER ASSOCIATES
5030 38TH AVENUE
MOLINE, ILLINOIS 61265
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DEVELOPER:
JOHN KENNEY
PIZZUTI
2001 BUTTERFIELD ROAD, SUITE 440
DOWNERS GROVE, ILLINOIS 60515
PH: (630) 981-3800

GENERAL NOTES &
TYPICAL SECTIONS
SPANGLER PARCEL – MASS GRADING
PIZZUTI
ROMEOVILLE, ILLINOIS

JACOB & HEFNER

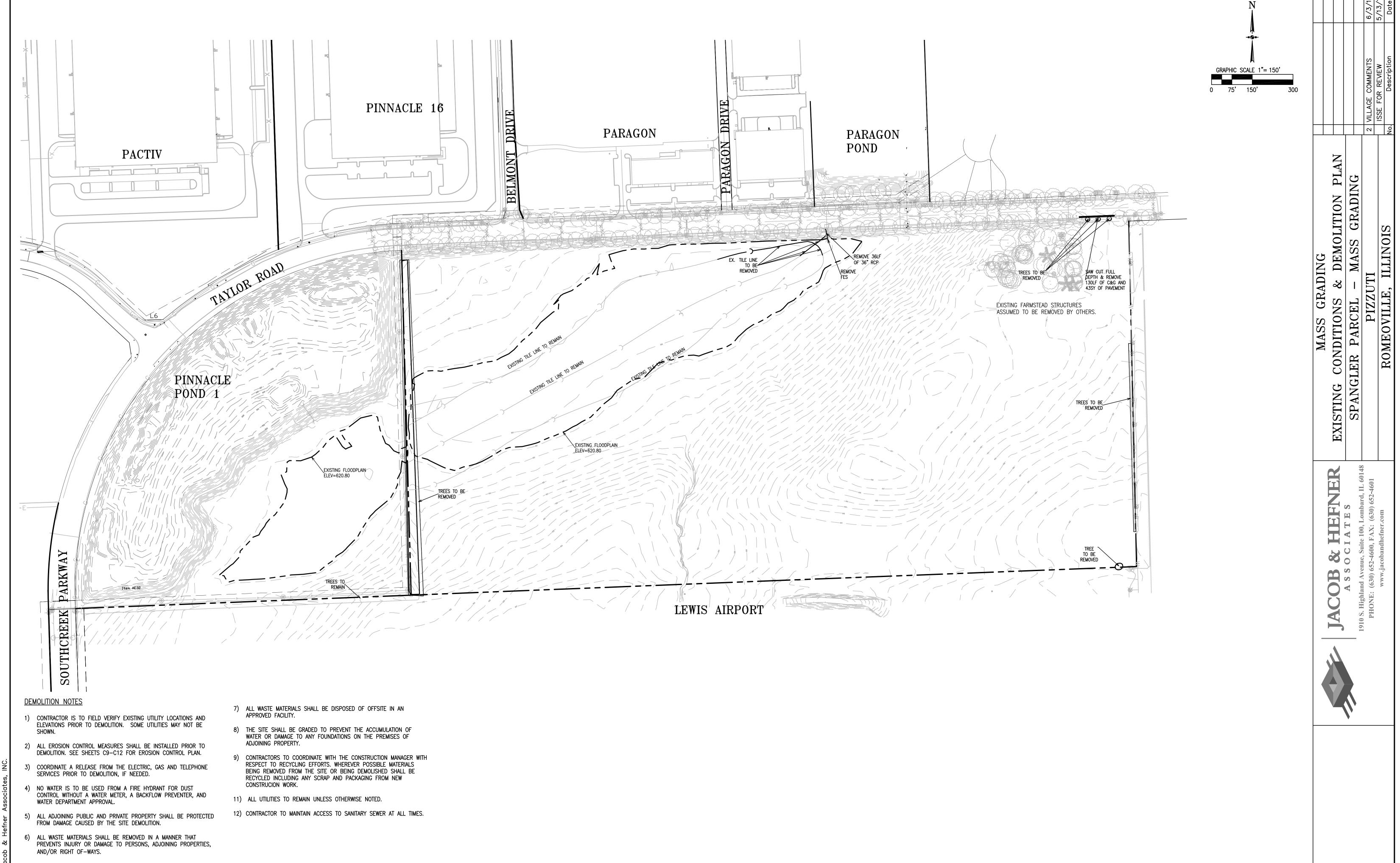


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N.T.S.

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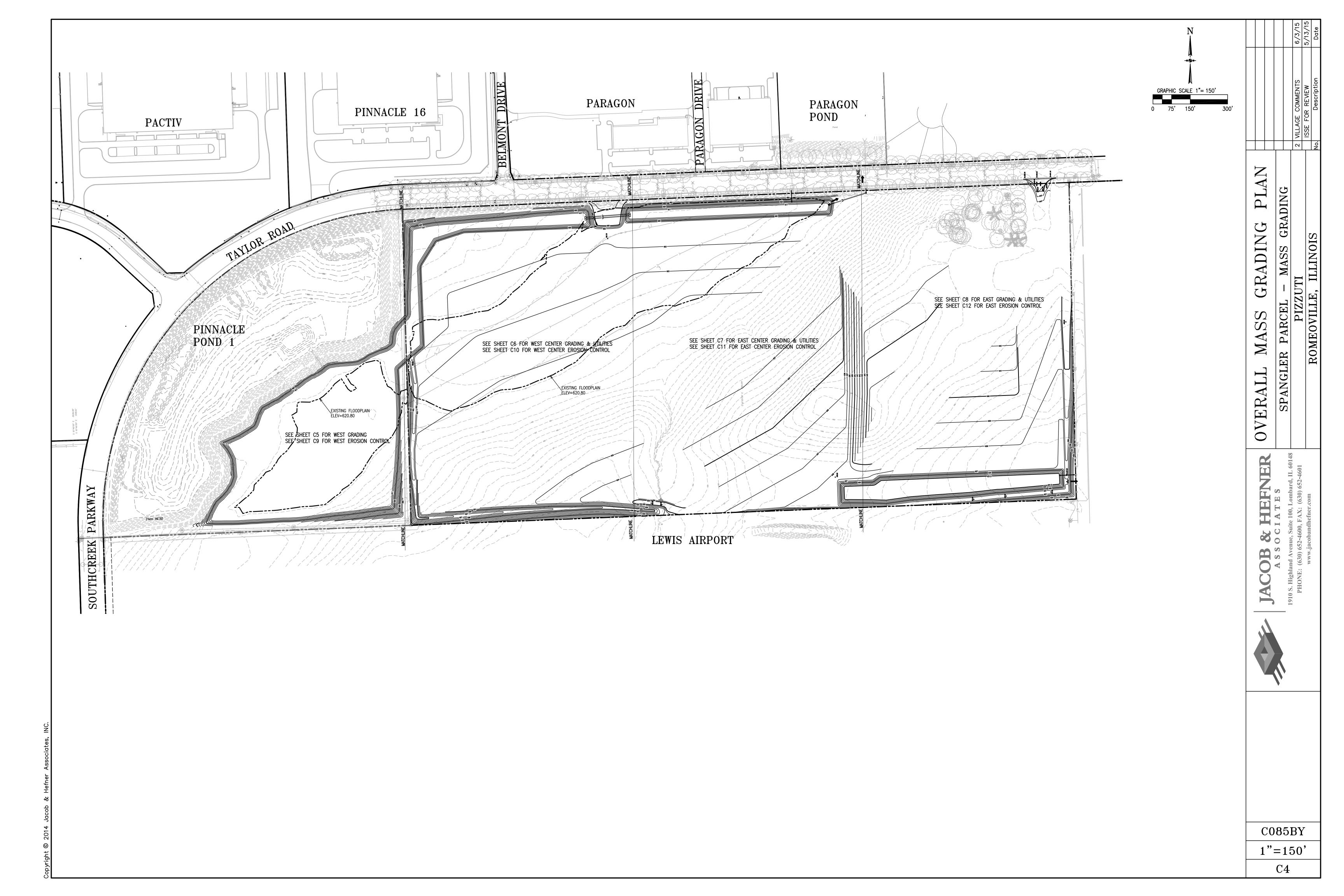


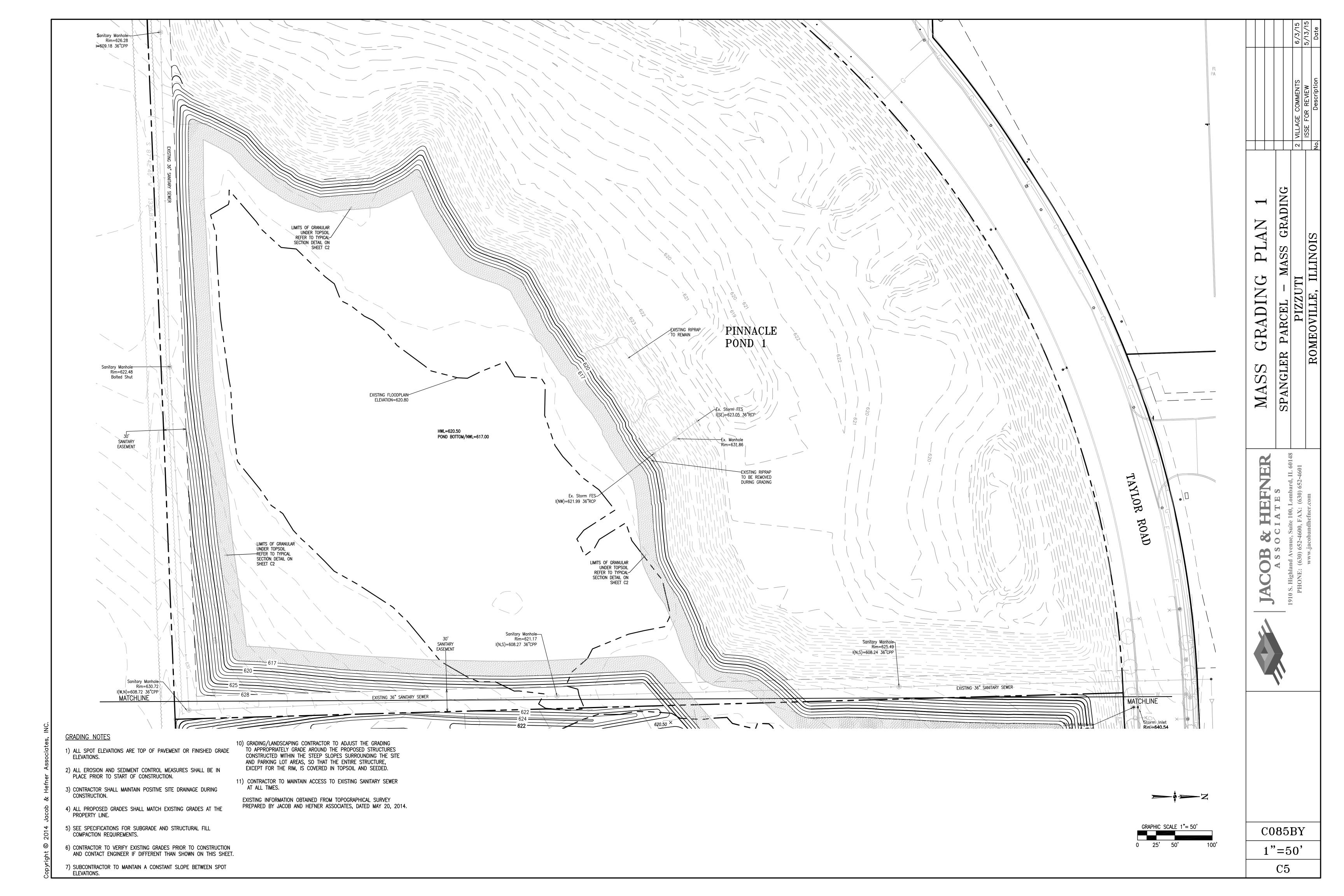
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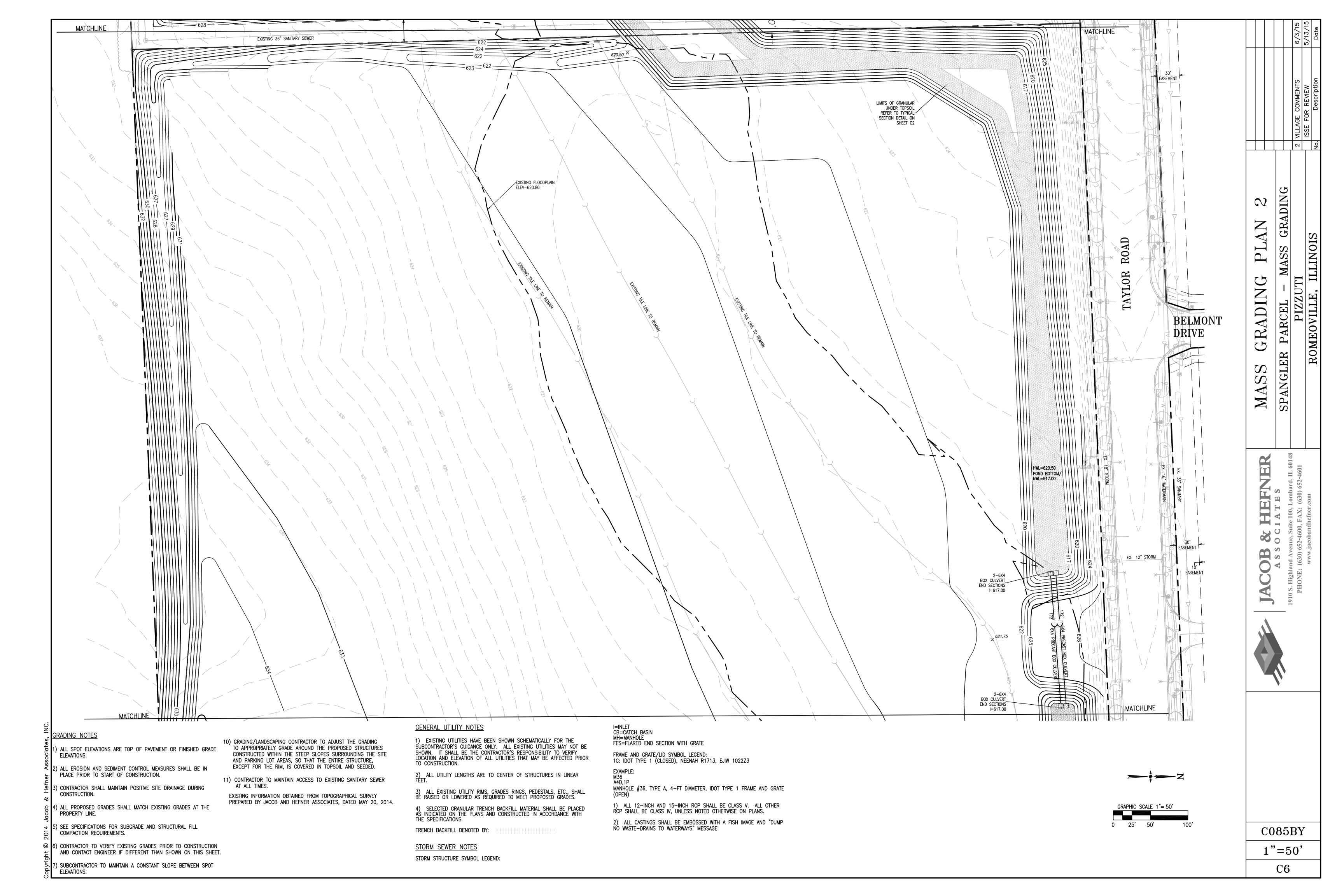
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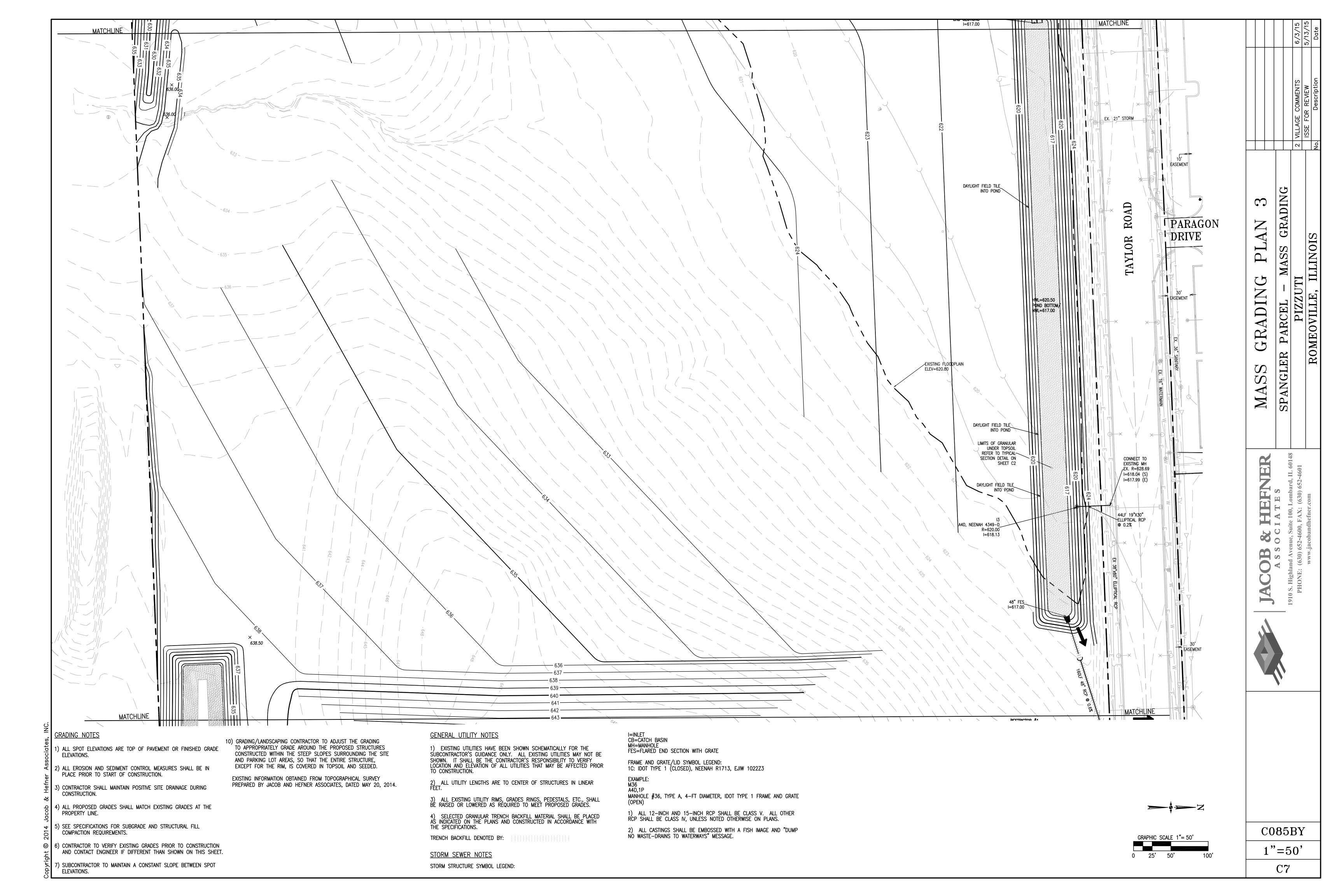
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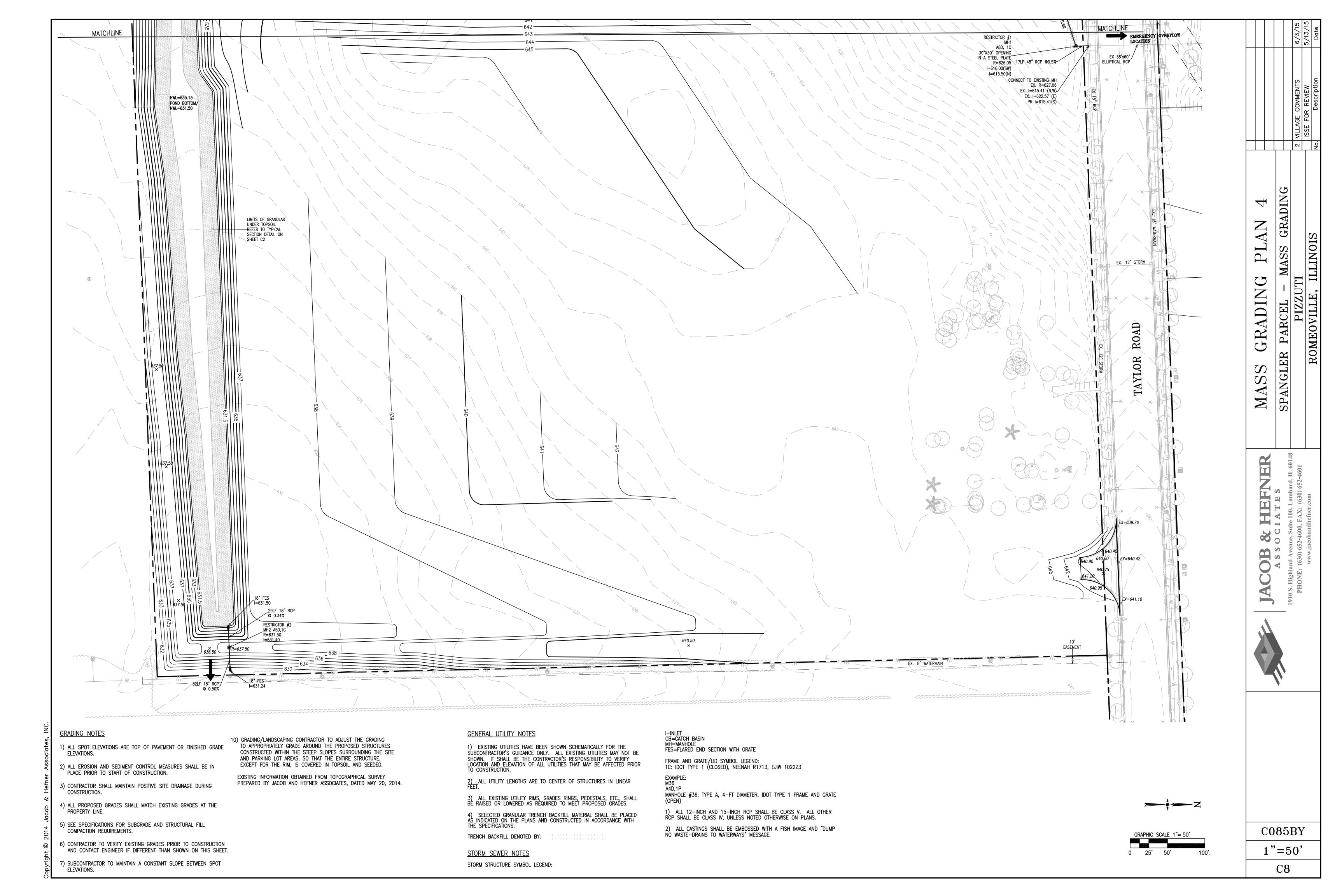
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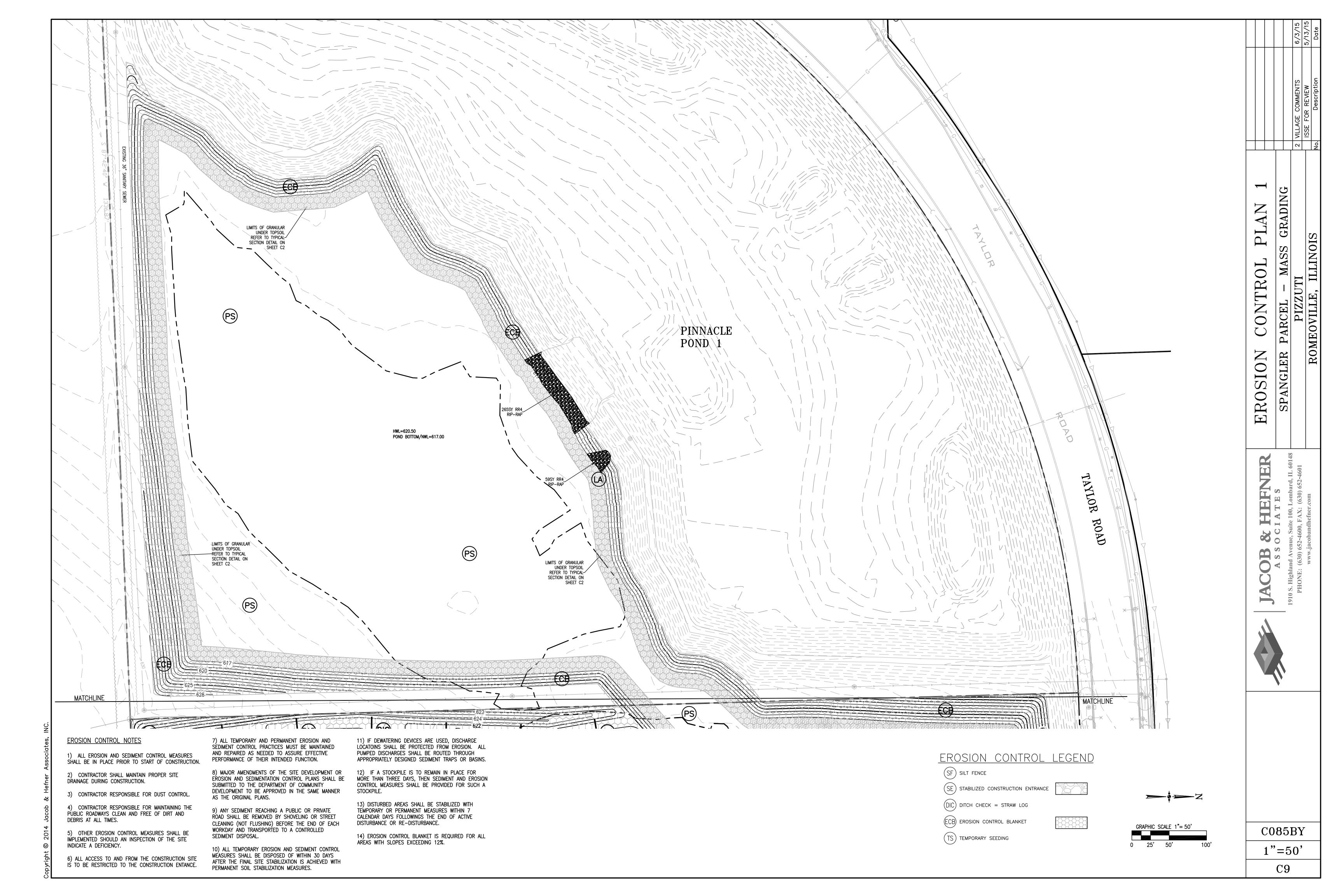


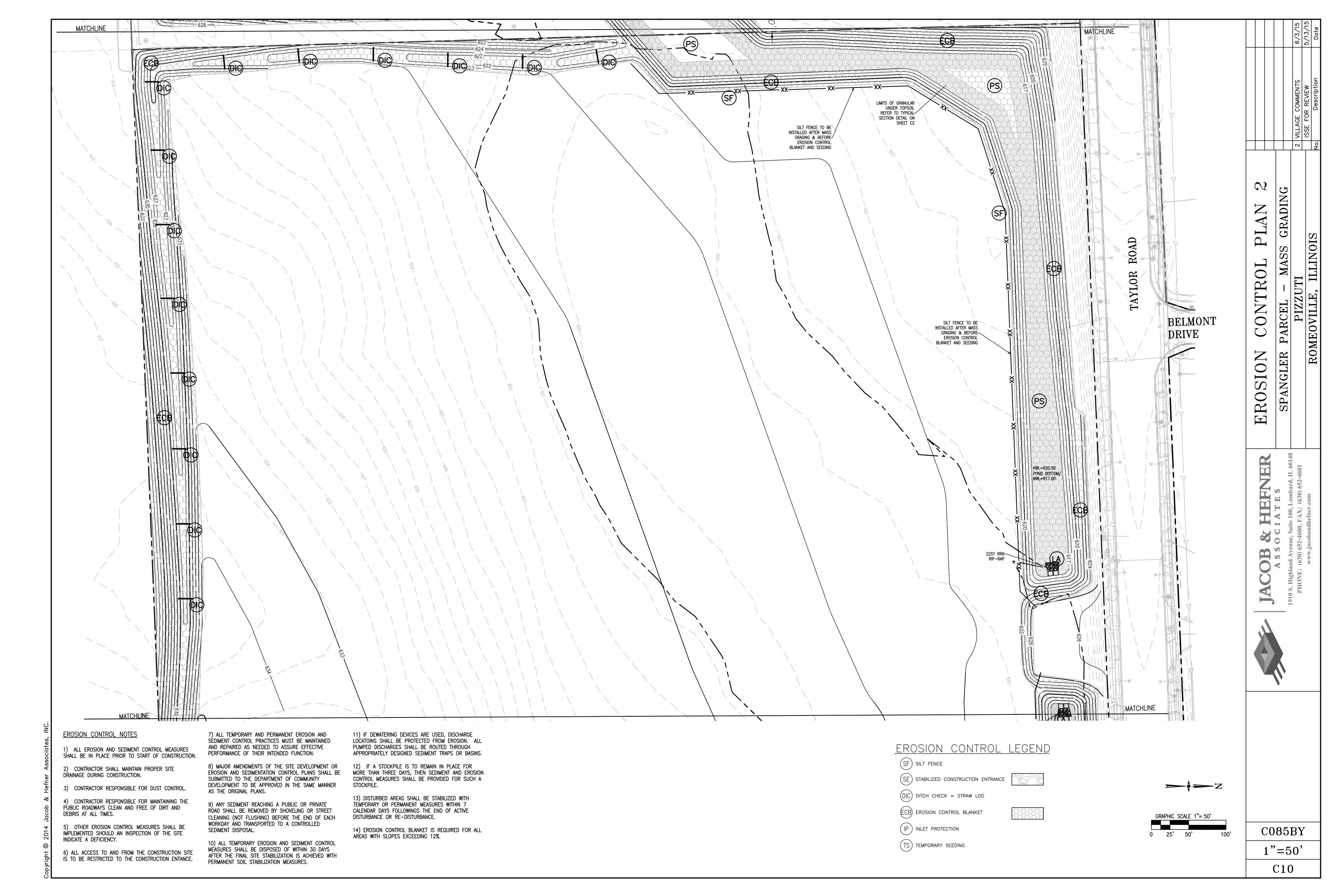


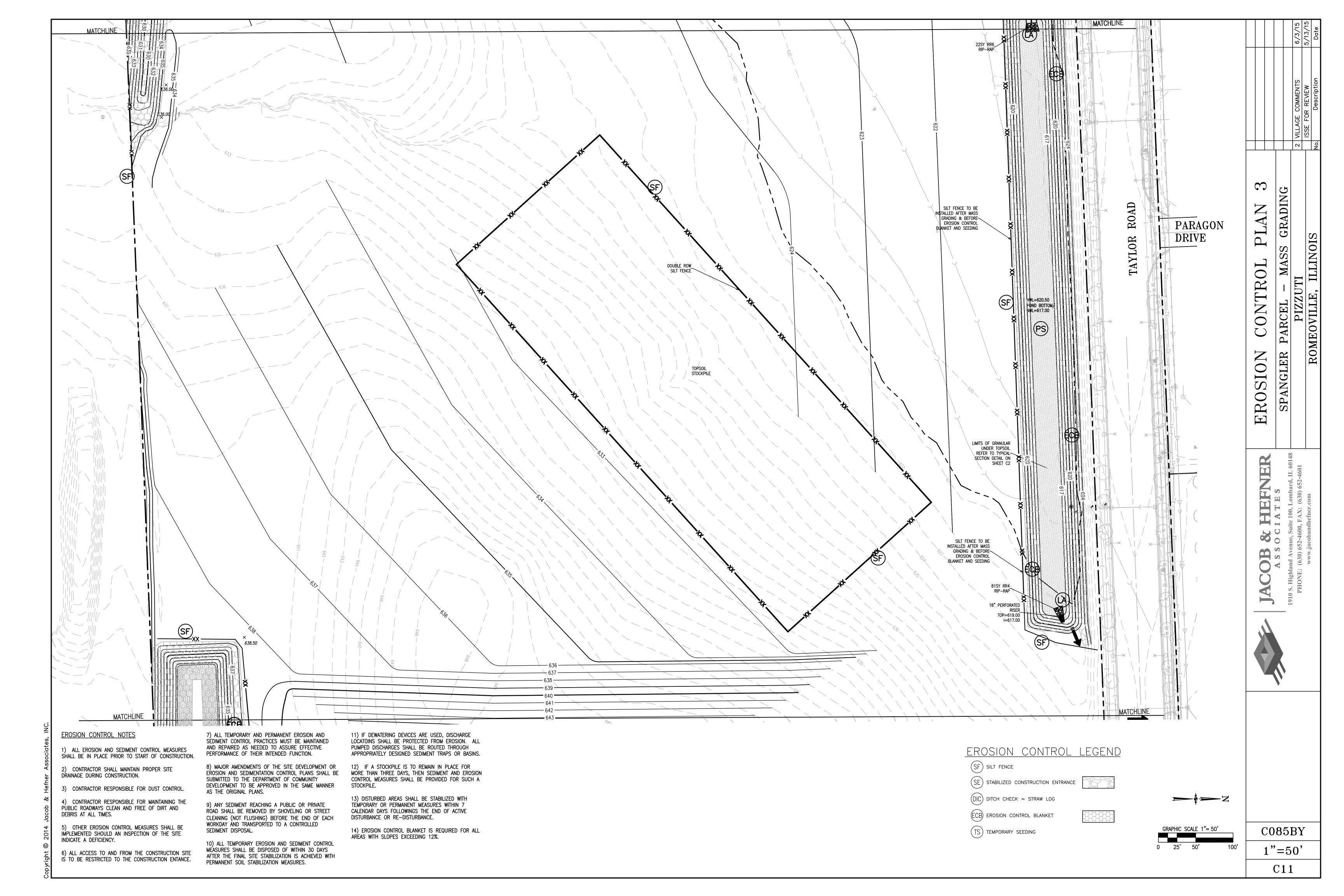


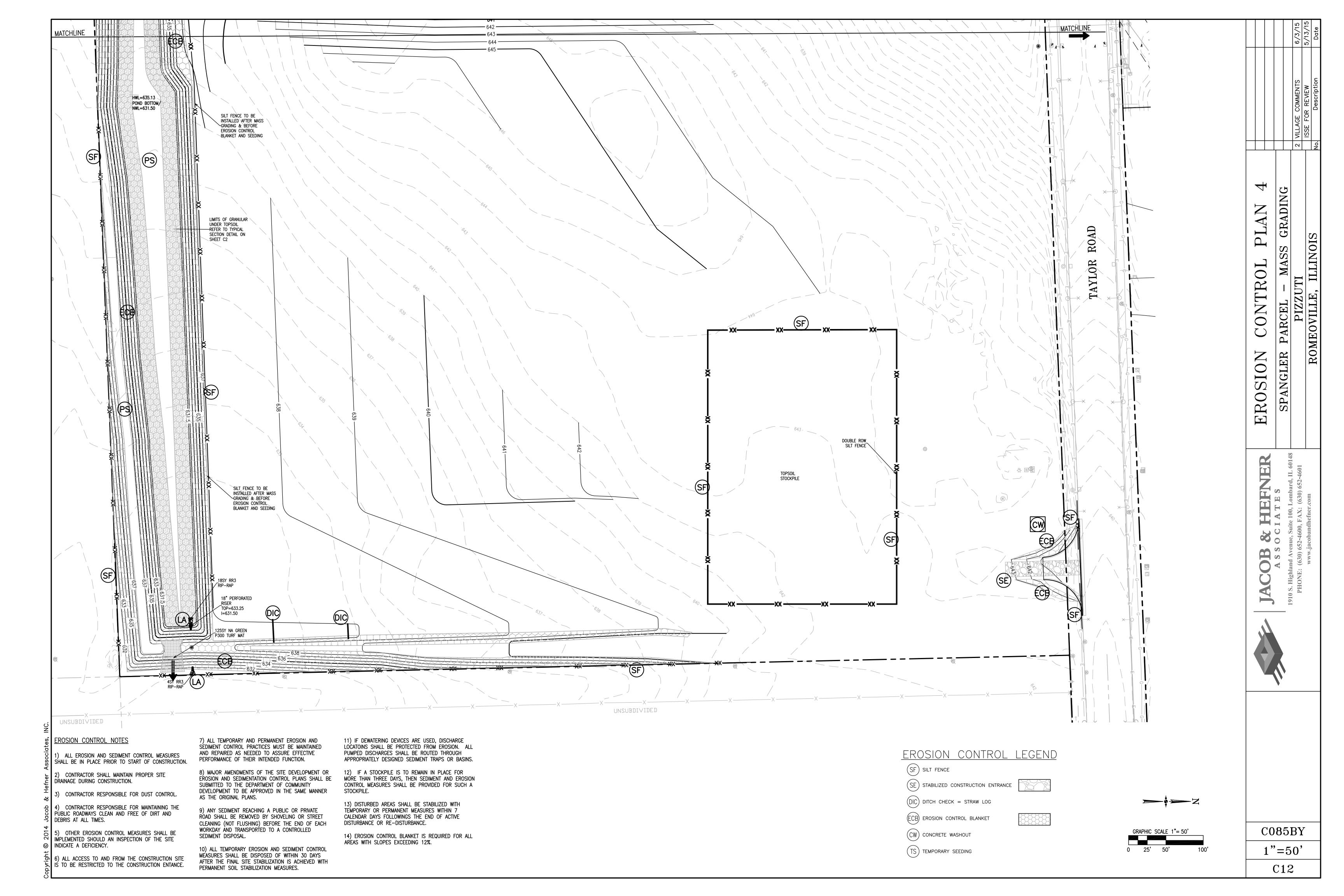












CONTROL MEASURE GROUP	CONTROL MEASURE	APPL.	KEY	CONTROL MEASURE CHARACTERISTICS	TEMP.	PERMNT	MAINTENANCE FREQUENCY
	TEMPORARY SEEDING	X	(P)	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.	Х		REDO ANY FAILING AREAS.
VEGETATIVE	PERMANENT SEEDING	X	PS	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION, FILTERS SEDIMENT FROM WATER. MAY BE PART OF FINAL LANDSCAPE PLAN.		x	REDO ANY FAILING AREAS.
SOIL COVER	DORMANT SEEDING		(DS)	SAME AS PERMANENT SEEDING EXCEPT IS DONE DURING DORMANT SEASON. HIGHER RATES OF SEED APPLICATION ARE REQUIRED.	Х	×	RE-SEED IF NEEDED.
	SODDING		<u></u>	QUICK PERMANENT COVER TO CONTROL EROSION. QUICK WAY TO ESTABLISH VEGETATION FILTER STRIP. CAN BE USED ON STEEP SLOPES OR IN DRAINAGE WAYS WHERE SEEDING MAY BE DIFFICULT.	Х	×	N/A
	MACHINE TRACKING		@	PROVIDES SOIL ROUGHING FOR EROSION CONTROL.		×	N/A
NON VEGETATIVE	POLYMER		Ð	ADDED INSURANCE OF A SUCCESSFUL TEMPORARY OR PERMANENT SEEDING. PROVIDES TEMPORARY COVER WHERE VEGETATION CANNOT BE ESTABLISHED.	Х	×	REAPPLY EVERY $1\frac{1}{2}$ MONTHS.
SOIL COVER	AGGREGATE COVER		(AG	PROVIDES SOIL COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF—SITE.	Х	x	CLEAN UP DIRT FROM STONE AS NEEDED.
001211	PAVING	X	(2)	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.		×	N/A
	RIDGE DIVERSION		RD	TYPICALLY USED ABOVE SLOPES TO COLLECT FLOW AND TRANSFER DOWNSLOPE.	х	х	CLEAN SILT OUT WHEN HALF-FULL.
	CHANNEL DIVERSION		(i)	TYPICALLY USED TO DIVERT FLOW.	х	х	REPLACE PROTECTION WHEN NEEDED.
DIVERSIONS	COMBINATION DIVERSION		<u>©</u>	TYPICALLY USED ANYWHERE ON A SLOPE. SOIL TAKEN OUT OF CHANNEL IS USED TO BUILD THE RIDGE.	х	х	REPLACE PROTECTION WHEN NEEDED.
	CURB AND GUTTER	X	©	SPECIAL CASE OF DIVERSION USED IN CONJUNCTION WITH A STREET TO DIVERT WATER FROM AN AREA NEEDING PROTECTION.		х	N/A
	BENCHES		B	SPECIAL CASE OF DIVERSION CONSTRUCTED WHEN WORKING ON CUT SLOPES TO SHORTEN LENGTH OF SLOPE AND ADD SLOPE STABILITY.	х	×	N/A
	VEGETATIVE CHANNEL		8	PROVIDED ADDED STABILITY TO CHANNEL. USED WHEN VELOCITY OF FLOW IS NOT EXTREMELY FAST.	х	х	REDO ANY FAILING AREAS.
WATERWAYS	LINED CHANNEL		(2)	USED WHEN VEGETATION WILL NOT PROTECT THE CHANNEL AGAINST HIGH VELOCITIES OF FLOW OR WHERE VEGETATION CANNOT BE ESTABLISHED.	х	×	REPLACE PROTECTION WHEN NEEDED.
ENCLOSED	STORM SEWER		(TI)	CAN BE USED TO CONVEY SEDIMENT LADEN WATER TO SEDIMENT BASIN OR IN CONJUNCTION WITH A WATERWAY.		х	CLEAN SEDIMENT OUT.
DRAINAGE	UNDER DRAIN	\forall	9	USED TO LOWER WATER TABLE AND INTERCEPT GROUNDWATER FOR BETTER VEGETATION GROWTH AND SLOPE STABILITY. USED TO CARRY BASE FLOW IN WATERWAYS AND TO DEWATER SEDIMENT BASINS.	х	x	N/A
	STRAIGHT PIPE SPILLWAY		(F9)	USED FOR RELATIVELY SMALL VERTICAL DROPS AND SMALL FLOWS OF WATER.		x	CLEAN OUT CONSTRUCTION DEBRIS.
	DROP INLET PIPE SPILLWAY		OIS)	SAME AS PIPE SPILLWAY EXCEPT LARGER FLOWS AND LARGE VERTICAL DROPS CAN BE ACCOMMODATED.		х	CLEAN OUT CONSTRUCTION DEBRIS.
SPILLWAYS	WEIR SPILLWAY	X	(W)	USED FOR RELATIVELY SMALL VERTICAL DROPS AND FLOWS MUCH GREATER THAN PIPE STRUCTURES.	х	х	CLEAN OUT CONSTRUCTION DEBRIS.
	BOX INLET WEIR SPILLWAY		(BS)	SAME AS WEIR SPILLWAY EXCEPT LARGER FLOWS CAN BE ACCOMMODATED BECAUSE OF LOWER WEIR LENGTH.	х	x	CLEAN OUT CONSTRUCTION DEBRIS.
OUTLETS	LINED APRON	X	(A)	PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURES.	Х	×	REPAIR DISLODGED STONES OR EROSION UNDER RIP—RAP AS NEEDED
SEDIMENT	SEDIMENT BASIN		SB)	USED TO COLLECT SMALLER PARTICLES — DETAIN WATER WITH CONTROLLED RELEASE.	х	×	CLEAN SEDIMENT OUT WHEN HALF-FULL.
BASINS	SEDIMENT TRAP		(ST)	USED TO COLLECT LARGER PARTICLES — DETAIN WATER WITH CONTROLLED RELEASE.	х	x	CLEAN SEDIMENT OUT WHEN HALF-FULL.
SEDIMENT	SILT FENCE	X	(SF)	USED FOR SINGLE LOTS OR DRAINAGE AREAS LESS THAN 1/2 ACRE TO FILTER SEDIMENT FROM RUNOFF.	х		CLEAN SEDIMENT OUT WHEN SILT IS HALF-FULL. REPAIR ANY DAMAGED SILT
FILTERS	VEGETATIVE FILTER	\forall	(F)	USED ALONG DRAINAGE WAYS OR PROPERTY LINES TO FILTER SEDIMENT FROM RUNOFF. SIZE MUST BE INCREASED IN PROPORTION TO DRAINAGE AREA.	х	x	FENCE WHEN NEEDED. REDO ANY FAILING AREAS.
MUD AND	STABILIZED CONST. ENTRANCE	\forall	(SE)	PREVENT MUD FROM BEING PICKED UP AND CARRIED OFF-SITE.	х	x	SCRAPE MUD AND REPLACE STONE AS NEEDED.
DUST CONTROL	DUST CONTROL	\forall	(d)	PREVENTS DUST FROM LEAVING CONSTRUCTION SITE.	х	x	RE—APPLY AS NEEDED.
	EROSION CONTROL BLANKET			PROTECTS SOIL, SEED AND HELPS GROW VEGETATION.			REPLACE AS NEEDED
	TURF REINFORCEMENT MAT			REINFORCES TURF IN CHANNELS AND SHORELINES.			REPLACE AS NEEDED
EROSION	CELLULAR CONFINEMENT	+	(F)	USED TO HOLED TOPSOIL ON STEEP SLOPES.			REPLACE AS NEEDED
CONTROL	GABIONS	+	(GA)	USED TO PREVENT EROSION IN VERY HIGH FLOW AREAS.			REPLACE AS NEEDED
	GEOTEXTILE FABRIC	+	(GF)	USED FOR EROSION / SEDIMENT CONTROL/ SEPARATION / STABILIZATION.			REPLACE AS NEEDED
	GEOBLOCK POROUS PAVEMENT	+	<u>)</u>	USED FOR FIRE LANE ACCESS / VEGETATIVE PAVEMENT.			REPLACE AS NEEDED
	INLET PROTECTION		<u>)</u>	USED FOR PROTECTION OF INLETS.			REPLACE OR CLEAN WHEN CLOGGED.
	SLOPE INTERRUPT		(s)	USED TO BREAK UP THE FLOW ON A SLOPE.			CLEAN OUT WHEN HALF-FULL OF SILT.
	DITCH CHECK		©	USED FOR FLOW SEDIMENT CONTROL IN SWALES AND CHANNELS.	 		CLEAN OUT WHEN HALF-FULL OF SILT.
SEDIMENT CONTROL	FLOC LOG			USED TO CLARIFY WATER THAT HAS SEDIMENT IN THE WATERY COLUMN.			REPLACE WHEN HALF DISSOLVED.
	SILT CURTAIN	+	(S)	USED FOR SEDIMENT CONTROL IN STREAM / POND.			REPLACE WHEN FABRIC IS TORN OR HOLES
	PUMPING DISCHARGE BAG	+	(PB)	USED FOR PUMP DISCHARGE LINES.			BEGIN TO FORM. REPLACE WHEN HALF-FULL, FABRIC IS TORN,
	CONCRETE WASHOUT		(W)	FOR CONCRETE TRUCKS TO WASHOUT.			OR HOLES BEGIN TO FORM. CLEAN OUT WHEN HALF-FULL, CLEAN
	STREET SWEEPING	\Rightarrow	SS	USED TO PREVENT SILT BUILD UP IN STREETS.			WASHOUT GRAVEL AREA AS NEEDED. CLEAN ONCE A WEEK, OR AS NEEDED
				IS SIE, BOILD OF IN OFFICE OF			TO KEEP STREET CLEAN.

NOTES:

This plan has been prepared to comply with the provisions of the NPDES Permit Number ILR106769, issued by the Illinois Environmental Protection Agency for Stormwater Discharges from Construction Site Activities and Soil Erosion and Sediment Control Ordinance for the County.

Site Description.

a. The following is a description of the construction activity following mass grading which is the subject of this

The proposed development consists of construction of Light Industrial Development The construction activities for site improvements will include: mass grading, pavement construction, installation of utilities including storm sewers, soil erosion and sedimentation control measures, as a minimum.

b. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site, such as grubbing, excavation, and grading:

The sequence of the construction activities may be as follows: 1) install silt filter fence and stabilized construction entrance, 2) mass grading, 3) underground utilities installation, 4) fine grading in pavement area and 5) pavement construction. The soil erosion and sedimentation control items will be constructed as needed during the above construction activities.

c. The total area of the construction site is estimated to be <u>92.4</u> acres.

The total area of the site that it is estimated to be disturbed by excavation, grading, or other activities,

d. The estimated runoff coefficients of the various areas of the site after construction activities are completed are contained in the project drainage study, titled Stormwater Management for by Jacob & Hefner Associates. Inc. which is hereby incorporated by reference in this plan.

The estimated proposed overall site runoff coefficient is f. Existing data describing soils or quality of discharge (soils report if available) Poor/Fair/Good/Not Available

g. Name of receiving water(s) Village of Romeoville Storm Sewer Name of ultimate receiving water(s) Des Plaines River

This section of the plan addresses the various controls that will be implemented for each of the major construction activities described in 1.b above. For each measure discussed, the contractors will be responsible for its implementation as indicated. Each such contractor has signed the required certification on forms which are attached to, and are a part of, this plan.

a. Erosion and Sediment Controls.

(i) STABILIZATION PRACTICES. Provided below is a description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Except as provided in 2.a.(i).(A) and 2.b., stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased on all disturbed portions of the site where construction activity will not occur for a period of 21 or more calendar days.

Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall by initiated as soon as practicable thereafter.

The following interim and permanent stabilization practices, as a minimum, will be implemented to stabilize the disturbed area of the site:

Permanent seedina Silt filter fence

Vegetative Filter Stabilized construction entrance Barrier filter

(ii) STRUCTURAL PRACTICES. Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. The installation of these devices may be subject to Section 404 of the Clean Water Act.

Detention Pond

Storm sewer system Rip-rap for outlet protection

Permanent seeding

(iii) DUST CONTROL: Dust Control shall be provided per standard 825 of Illinois Urban Manual. Following are the dust control that can be used.

Spray on adhesive Vegetative cover Mulching

b. Stormwater Management.

(i) Provided below is a description of measures that will be installed during the construction process to control pollutants in stormwater discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

The practices selected for implementation were determined on the basis of the technical guidance contained in IEPA's Standard Specifications for Soil Erosion and Sedimentation Control, and other ordinances listed in the Specifications.

The stormwater pollutant control measures shall include:

Silt filter fence Barrier filters

Storm sewers 4. Retention/Detention ponds

(ii) Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., maintenance of hydrologic conditions, such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Stormwater Management Control includes:

Rip-rap for outlet protection 2. Ditch check

c. Other Controls.

(i) Waste Disposal. The solid waste materials including trash, construction debris, excess construction materials, machinery, tools and other items will be collected and disposed off-site by the contractor. The contractor is responsible to acquire any permit required for such disposal. Burning on the site will not be permitted. No solid materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.

(ii) The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

The sanitary sewage will be discharged to the proposed sanitary sewer constructed per IEPA and local

d. Approved State or Local Plans.

The management practices, controls, and other provisions contained in this plan are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Standards and Specifications for Soil Erosion and Sediment Control dated October 1987, Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Plan, and the Municipal Subdivision Ordinance. Requirements specified in sediment and erosion control site plans or site permits or stormwater management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI to be authorized to discharge under this permit, incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Maintenance

replaced as needed

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, vegetation, erosion and sediment control measures and other protective measures identified in this plan and Standard Specifications.

Stabilized construction entrance: The entrance shall be maintained to prevent tracking of sediment onto public streets. This will be done by top dressing with additional stones, remove and replace top layer of stones or washing the entrance. The sediment washed on the public right-of-way will be removed immediately.

Vegetative erosion control measures: The vegetative growth of temporary and permanent seeding, sodding, vegetative channels, vegetative filter, etc. shall be maintained periodically and supply adequate watering and fertilizer. The vegetative cover shall be removed and reseeded as necessary.

Sedimentation basins/traps: The sediments shall be removed when 40-50 percent of the total original

capacity is occupied by the sediment. In no case shall the sediment be built up to more than 1 foot below the crest elevation. At this stage, the basin shall be cleaned out to restore its original volume. Silt filter fence: The damaged silt filter fence shall be restored to meet the standards or removed and

Straw bale barrier filters: The straw bale barrier filter shall be inspected frequently and shall be repaired or removed and replaced as needed.

Rip-Rap outlet protection: It shall be inspected after high flows for any scour beneath the Rip-Rap or for stones that have been dislodged. It shall be repaired immediately.

4. Inspections

The Owner, or Owner's representative shall provide qualified personnel to inspect disturbed areas of the construction site which have not been finally stabilized, structural control measures, and location where vehicles enter or exit the site. Such inspections shall be conducted at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall.

a. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off site sediment tracking.

b. Based on the results of the inspection, the description of potential pollutant sources identified in section 1 above and pollution prevention measures identified in section 2 above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within 7 calendar days following the inspection.

c. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of this stormwater pollution prevention plan, and actions taken in accordance with section 4.b. shall be made and retained as part of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI.G of the general permit.

d. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer or Resident Technician shall complete and file an "Incidence of Noncompliance" (ION) report for the identified violation. The Resident Engineer or Resident Technician shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit. The report of noncompliance shall be mailed to the following address:

ALL PACKAGES: Illinois Environmental Protection Agency Division of Water Pollution Control Attn: Compliance Assurance Section 1024 North Grand Avenue, East Springfield, IL 62794

Illinois Environmental Protection Agency Division of Water Pollution Control Attn: Compliance Assurance Section Post Office Box 19276 Springfield, IL 62794-9276

5. Non-Stormwater Discharge

Except for flows from fire fighting activities, sources of non-stormwater that may be combined with stormwater discharges associated with the residential activity addressed in this plan, are described below:

Water main flushing Fire hydrant flushing Watering for dust control

Irrigation drainage for vegetative growth for seeding, etc.

The pollution prevention measures, as described below, will be implemented for non-stormwater components of

The fire hydrant and water main shall not be flushed directly on the exposed area or subgrade of the pavement. Hoses shall be used to direct the flow into the storm sewer system.

The erosion due to irrigation of seeding shall be considered minor.

VILLAGE NOTES:

1) THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO CONTROL WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE AT THE CONSTRUCTION SITE THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY.

2) ALL STORM SEWER FRAMES AND GRATES/LIDS SHALL BE MARKED WITH "DUMP NO WASTE" AND "DRAINS TO

INCLUDED IN THE NOI SHALL BE THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), WHICH INCLUDES THE

3) A NOTICE OF INTENT (NOI) MUST BE SUBMITTED TO THE NPDES PERMITTING AUTHORITY AND POSTMARKED AT LÉAST 30 DAYS BEFORE COMMENCEMENT OF ANY OWRK ON-SITE FOR ALL COSTRUCTION SITES OVER ONE ACRE.

APPROPRIATE BMP'S TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THE CONSTRUCTION SITE.

4) AN INCIDENT OF NON-COMPLIANCE (ION) MUST BE COMPLETED AND SUBMITTED TO THE IEPA IF, AT ANY TIME, AN EROSION OR SEDIMENT CONTROL DEVICE FAILS.

5) A NOTICE OF TERMINATION (NOT) MUST BE COMPLETED AND SUBMTTIED TO THE IEPA WHEN ALL PERMANENT EROSION CONTROL MEASURES ARE IN PLACE WITH A 70% ESTABLISHMENT OF VEGETATION.

EROSION CONTROL CERTIFICATE:

THIS EROSION CONTROL PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION. AND COMPLIES WITH THE URBAN SOIL EROSIONS CONTROL AND STANDARDS IN ILLINOIS MANUAL (LATEST EDITION) AND THE GENERALLY RECOGNIZED METHODS IN USE IN THE AREA.

18" DIA. ADS

PERFORATED HDPE

PIPE W/ FILTER SOCK

BOTTOM OF POND

STONE 2" MAX -

W/PERFORATED END

PLUG OR APPROVED

ADS BLIND TEE

UNTIL SITE CONSTRUCTION IS COMPLETE.

3 SEE PLANS FOR TOP ELEVATION.

1. TEMPORARY FILTER RISER TO REMAIN IN PLACE

FES WITH GRATE WHEN CONSTRUCTION COMPLETE.

2. TEMPORARY FILTER RISER SHALL BE REPLACED WITH

TEMPORARY FILTER RISER DETAIL

Signature:

OBSERVATION & MAINTENANCE SCHEDULE RESPONSIBLE PARTY STABILIZATION DURING DURING CONSTRUCTION CONSTRUCTION-CONTRACTOR MAINTENANCE STABILIZATION DURING WEEKLY & AFTER EACH DEVELOPER/OWNER | RAINFALL EVENT IN CONSTRUCTION-OBSERVATION EXCESS OF 0.5". VEGETATION YEAR FROM MAINTENANCE CONTRACTOR COMPLETION VEGETATION ONGOING FROM DEVELOPER/OWNER CONSTRUCTION STABILIZATION MAINTENANCE COMPLETION

			NPDES	CERTIFIC
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This certification statement is a part of the Storm Water Pollution Prevention Plan for the project described below, in accordance with NPDES Permit No. ILR106769, issued by the Environmental Protection Agency on April 22, 2015

PROJECT TITLE: SPANGLER PROJECT LOCATION: ROMEOVILLE ILLINOIS

CITY/VILLAGE COUNTY DEVELOPER: PIZZUTI

certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature:

RCP OUTFALL PIPE

└ W/ ADS MASTIC REPAIR

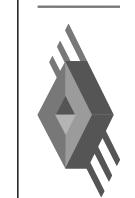
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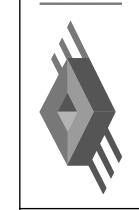
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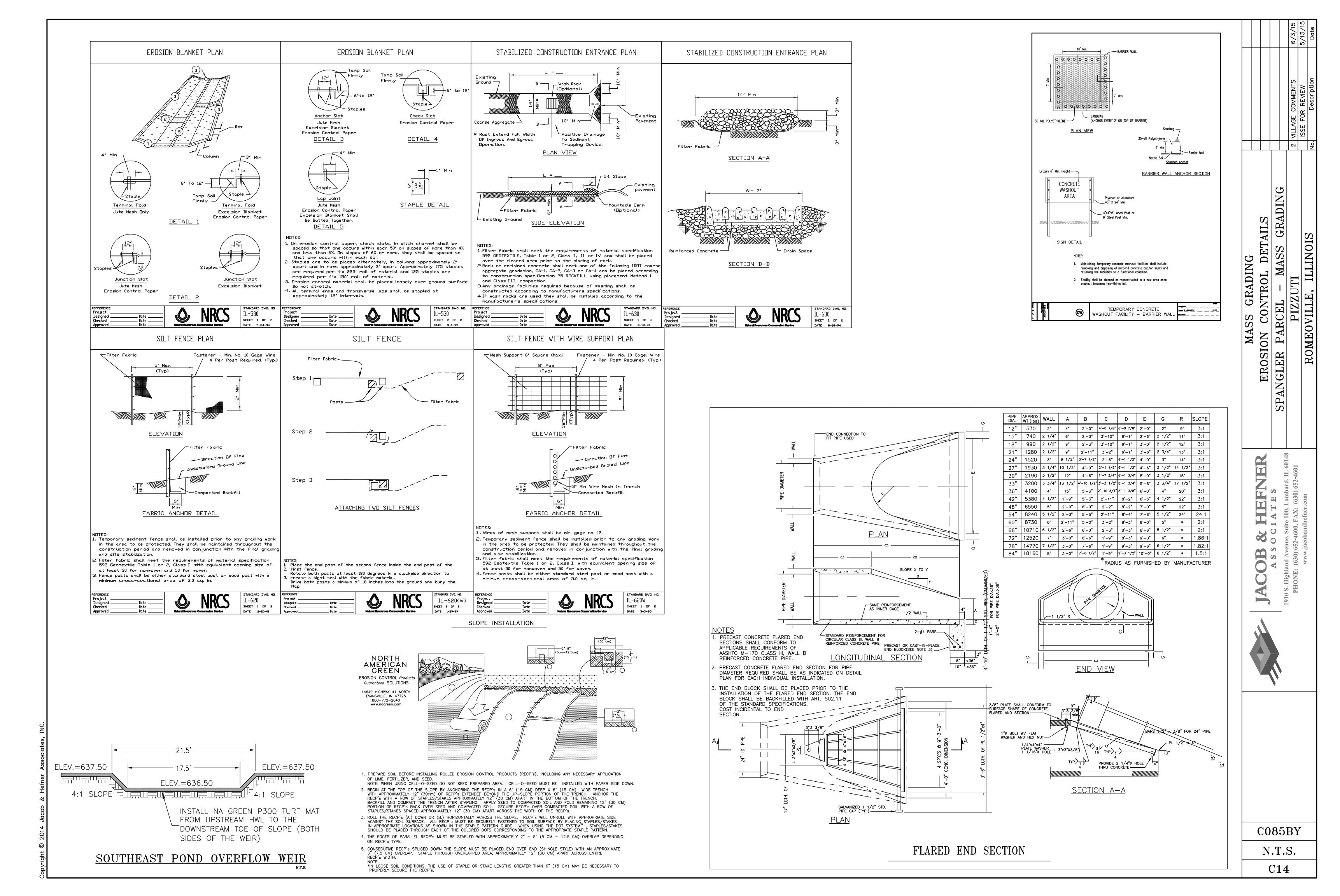




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C13



TOPSOIL EXCAVATION

- A. EXCAVATION OF TOPSOIL AND OTHER STRUCTURALLY UNSUITABLE MATERIALS WITHIN THOSE AREAS THAT WILL REQUIRE EARTH EXCAVATION OR COMPACTED EARTH FILL MATERIAL, AND CUT AREAS OF THE NON-STRUCTURAL ZONES. TOP SOIL MAY NOT BE REMOVED IF FILL IS TO BE PLACED IN NON-STRUCTURAL
- B. PLACEMENT OF THE EXCAVATED MATERIAL IN OWNER DESIGNATED AREAS FOR FUTURE USE WITHIN AREAS TO BE LANDSCAPED, AND FILL IN THE AREAS NOT REQUIRING STRUCTURAL FILL MATERIAL.
- C. EXCESS MATERIALS, IF NOT UTILIZED AS FILL OR IF NOT TO BE STOCKPILED FOR FUTURE LANDSCAPING, SHALL BE COMPLETELY REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF OFF—SITE BY THE SUBCONTRACTOR.
- D. ALL PROPOSED GREEN AREAS SHALL BE RESPREAD WITH 6-INCHES OF TOPSOIL AND SEEDED UNLESS OTHERWISE NOTED. 2. EARTH EXCAVATION
- A. EXCAVATION OF EARTH AND OTHER MATERIALS WHICH ARE SUITABLE FOR USE AS STRUCTURAL FILL. THE EXCAVATION SHALL BE TO WITHIN A TOLERANCE OF 0.1 FEET +/- OF THE PLAN SUBGRADE ELEVATIONS. THE +/- TOLERANCE WITHIN PAVEMENT AREAS SHALL BE SUCH THAT THE EARTH MATERIALS SHALL "BALANCE" AS PART OF THE FINE GRADING OPERATION.
- B. PLACEMENT OF THE EARTH AND OTHER SUITABLE MATERIALS SHALL BE WITHIN THOSE AREAS REQUIRING STRUCTURAL FILL IN ORDER TO ACHIEVE THE PLAN SUBGRADE ELEVATIONS TO WITHIN A TOLERANCE OF 0.1 FEET $\pm/-$ MATERIAL SHALL BE PLACED IN LOOSE LIFTS THAT SHALL NOT EXCEED EIGHT (8) INCHES IN THICKNESS, AND THE WATER CONTENT SHALL BE ADJUSTED IN ORDER TO ACHIEVE REQUIRED COMPACTION. EARTH MATERIAL MAY BE PLACED WITHIN THOSE PORTIONS OF THE SITE NOT REQUIRING STRUCTURAL FILL, TO WITHIN PLAN SUBGRADE ELEVATION. IN AREAS REQUIRING STRUCTURAL FILL HOWEVER, THE EARTH MATERIAL SHALL NOT BE PLACED OVER TOPSOIL OR OTHER UNSUITABLE MATERIALS. THE STRUCTURAL SUBGRADE AREA SHALL EXTEND TO THE ZONE OF INFLUENCE IN ALL FILL AREAS.
- C. COMPACTION OF THE EARTH AND OTHER SUITABLE MATERIALS, SHALL BE TO AT LEAST 95% OF THE MODIFIED PROCTOR DRY DENSITY WITHIN PROPOSED PAVEMENT AND BUILDING PAD AREAS, SIDEWALK, ETC., 90% TO 95% OF THE MODIFIED PROCTOR DRY DENSITY IS REQUIRED IN NON—STRUCTURAL FILL AREAS.
- 3. UNSUITABLE MATERIAL
- . UNSUITABLE MATERIAL SHALL BE CONSIDERED AS MATERIAL WHICH IS NOT SUITABLE FOR THE SUPPORT OF PAVEMENT AND BUILDING CONSTRUCTION, AND IF IT IS ENCOUNTERED BELOW NORMAL TOPSOIL DEPTHS AND THE PROPOSED SUBGRADE ELEVATION IT SHALL BE REMOVED AND REPLACED WITH SUITABLE FILL APPROVED BY THE SOILS ENGINEER. THE DECISION TO REMOVE SAID MATERIAL, AND TO WHAT EXTENT, SHALL BE MADE BY A GEOTECHINICAL ENGINEER WITH THE CONCURRENCE OF THE OWNER. SUBGRADE SHALL BE GRADED TO ALLOW FOR POSITIVE DRAINAGE.
- 4. THE GRADING SUBCONTRACTOR SHALL:
- A. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES DURING THE COURSE OF CONSTRUCTION, AND PREVENT STORM WATER FROM RUNNING INTO OR STANDING
- B. SPREAD AND COMPACT UNIFORMLY TO THE DEGREE SPECIFIED ALL EXCESS TRENCH SPOIL AFTER COMPLETION OF THE UNDERGROUND IMPROVEMENTS. C. SCARIFY AND COMPACT TO THE DEGREE SPECIFIED THE UPPER TWELVE (12) INCHES OF THE SUITABLE SUBGRADE MATERIAL, IN ALL AREAS THAT MAY BE SOFT DUE TO EXCESS MOISTURE CONTENT. THIS APPLIES TO CUT AREAS AS
- D. PROVIDE WATER TO ADD TO DRY MATERIAL IN ORDER TO ADJUST THE MOISTURE CONTENT FOR THE PURPOSE OF ACHIEVING THE SPECIFIED COMPACTION.
- E. BACKFILL THE CURB AND GUTTER AFTER ITS CONSTRUCTION AND PRIOR TO THE PLACEMENT OF THE BASE COURSE MATERIAL.
- F. BE RESPONSIBLE FOR IMPLEMENTATION OF THE "SOIL EROSION AND SEDIMENTATION CONTROL MEASURES" AS DESCRIBED ON THE PLANS. ALL CONTRACTORS SHALL COMPLY WITH SWPPP AND NPDES REQUIREMENTS.

5. TESTING AND FINAL ACCEPTANCE

- A. THE CONTRACTOR SHALL PROVIDE AS A MINIMUM, A TANDEM AXLE TRUCK LOADED TO 14 TONS FOR PROOF ROLLING THE PAVEMENT SUBGRADE PRIOR TO THE PLACEMENT OF THE CURB AND GUTTER AND THE BASE MATERIAL. THIS SHALL BE WITNESSED AND APPROVED BY MUNICIPAL ENGINEER AND OWNER.
- ANY UNSUITABLE AREA ENCOUNTERED AS A RESULT OF PROOF ROLLING SHALL BE CONSULTANT, AND PROOF ROLLING SHALL BE PERFORMED UNTIL THE SUBGRADE IS
- THE WORK AREAS SHALL BE POSITIVELY DRAINED DURING CONSTRUCTION. FINAL GRADES SHALL BE PROTECTED AGAINST DAMAGE FROM EROSION, SEDIMENTATION AND TRAFFIC.

SOIL EROSION AND SEDIMENT CONTROL

- THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF THE SUBDIVISION CONTROL ORDINANCE OF THE MUNICIPALITY, AND THE ILLINOIS URBAN MANUAL.
- 2. BEFORE STARTING CLEARING AND SITE GRADING WORK, A CONSTRUCTION ENTRANCE AND SILT FENCE SHALL BE INSTALLED AS SHOWN ON THE PLANS.
- THE CONSTRUCTION ENTRANCE TO THE SITE SHALL BE STABILIZED WITH GRAVEL PRIOR TO BEGINING ANY WORK ON THE SITE. THE ENTRANCE SHALL BE MAINTAINED PERIODICALLY FOR ITS EFFECTIVENESS TO REMOVE DIRT WHICH COULD LEAVE THE SITE BY CONSTRUCTION VEHICLES.
- 4. SILT FILTER FENCE SHALL BE PLACED AS SHOWN ON THE PLANS AND AS DIRECTED BY THE MUNICIPALITY'S ENGINEERING INSPECTOR TO PREVENT SEDIMENT
- STAKED SILT FENCE SHALL BE INSTALLED AND MAINTAINED AROUND THE INLETS AND CATCH BASINS AS SHOWN ON THE PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION AND MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES.
- A THIRD PARTY CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES WEEKLY AND AFTER ANY STORM EVENT IN EXCESS OF 1/2". AN INSPECTION REPORT SHALL BE FILLED OUT EACH TIME AND SHALL BE KEPT IN A BINDER AT JOB SITE AT ALL TIMES ALONG WITH NOI, NPDES PERMIT & SWPPP PLAN..
- 8. AT THE COMPLETION OF THE PROJECT, ALL STORM SEWER PIPES AND STRUCTURES SHALL BE CLEANED AND FREE OF DIRT AND DEBRIS. THE SEDIMENTATION SHALL BE REMOVED FROM THE STORM SEWER SYSTEM AND SHALL NOT BE WASHED OUT
- THE TEMPORARY EROSION CONTROL MEASURES SHALL BE IN PLACE EFFECTIVELY UNTIL ALL THE PERMANENT EROSION CONTROL ITEMS ARE FULLY FUNCTIONAL.
- 10. THE GUARANTEE PERIOD SHALL START AFTER ALL THE PERMANENT EROSION CONTROL MEASURES ARE FULLY FUNCTIONAL AND ACCEPTABLE TO OWNER OR HIS

11. A. STOCKPILES OF ANY KIND SHALL NOT BE PLACED IN SPECIAL MANAGEMENT

B. IF A STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN THREE DAYS, THEN SEDIMENT AND EROSION CONTROL SHALL BE PROVIDED FOR SUCH STOCKPILE.

DEVELOPMENT SITES SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION.

- 12. IF THE VOLUME, VELOCITY, SEDIMENT LOAD, OR PEAK FLOW RATES OF STORM WATER RUNOFF ARE TEMPORARILY INCREASED DURING CONSTRUCTION, THEN PROPERTIES AND SPECIAL MANAGEMENT AREAS DOWNSTREAM FROM SUCH
- 13. STORM SEWER INLETS SHALL BE PROTECTED WITH SEDIMENT TRAPPING OR FILTER CONTROL DEVICES DURING CONSTRUCTION.
- THE SURFACE OF STRIPPED AREAS SHALL BE PERMANENTLY OR TEMPORARILY PROTECTED FROM SOIL EROSION WITHIN 14 DAYS AFTER FINAL GRADE IS REACHED UNLESS A ½" OR GREATER RAINFALL EVENT IS FORECAST PRIOR TO 14 DAYS. IN THAT CASE THE PROPER SOIL PROTECTION SHALL BE INSTALLED IMMEDIATELY. STRIPPED AREAS NOT AT FINAL GRADE THAT WILL REMAIN UNDISTURBED FOR MORE THAN 14 DAYS AFTER INITIAL DISTURBANCE SHALL BE PROTECTED FROM EROSION. TEMPORARY COVER SHALL BE MAINTAINED CONTINUOUSLY UNTIL PERMANENT COVER
- WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING CONSTRUCTION DEWATERING, IRRIGATION, OR FIRE HYDRANT FLUSHING SHALL BE FILTERED PRIOR TO LEAVING PROJECT SITE.
- GRAVELED ROADS, ACCESS DRIVES, PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH, AND VEHICLE WASHDOWN FACILITIES IF NECESSARY, SHALL BE PROVIDED TO PREVENT THE DEPOSIT OF SOIL FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAY SHALL DEPOSIT OF SOIL REACHING A PUBLIC OR PRIVATE ROADWAY SHALL
- ALL CONTRACTORS SHALL COMPLY WITH SWPPP PLAN AND NPDES REQUIREMENT & SHALL SIGN SWPPP ON FILE WITH OWNER OR GENERAL CONTRACTOR.

STORM SEWER

- ALL STORM SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS AND THE SUBDIVISION CONTROL ORDINANCE OF
- UNLESS OTHERWISE NOTED ON THE PLANS, ALL STORM SEWERS SHALL BE REINFORCED CONCRETE CULVERT PIPE, ASTM C 76, WITH "O" RING RUBBER GASKET JOINTS CONFORMING TO ASTM C-443. ALL
- ALL DOWNSPOUT AND FOOTING DRAINS SHALL BE DISCHARGED TO THE STORM SEWER SYSTEM OR ONTO THE GROUND.
- MANHOLE, CATCH BASIN AND INLET BOTTOMS SHALL BE PRECAST CONCRETE SECTIONAL UNITS OR MONOLITHIC CONCRETE. MANHOLES AND CATCH BASINS SHALL BE 4' IN DIAMETER UNLESS OTHERWISE SPECIFIED ON THE PLANS. MANHOLE JOINTS SHALL BE "O" RING GASKET JOINTS. A MAXIMUM OF SIX (6) INCHES ADJUSTING RINGS SHALL BE USED TO ADJUST FRAME ELEVATIONS. THE ADJUSTING RINGS SHALL BE SET IN FULL MORTAR BED.
- ALL STORM SEWERS SHALL BE INSTALLED ON A TYPE A BEDDING, 1/4" TO 3/4" IN SIZE, WITH A MINIMUM THICKNESS EQUAL TO 1/4 THE OUTSIDE DIAMETER OF THE SEWER PIPE BUT NOT LESS THAN 4". BLOCKING OF ANY KIND FOR GRADE IS NOT PERMITTED. THE GRANULAR MATERIAL FOR BEDDING AND TRENCH BACKFILL MATERIAL SHALL CONFORM TO IDOT GRADATION CA-6. THE GRANULAR MATERIAL FOR BEDDING AND INITIAL BACKFILL FOR FLEXIBLE PIPE SHALL BE NON-ANGULAR GRAVEL MATERIAL CONFORMING TO ASTM D-2321, CLASS I. THE COST OF BEDDING MATERIAL SHALL BE MERGED WITH THE UNIT PRICE BID FOR THE SEWER. THE BEDDING MATERIALS SHALL BE COMPACTED TO 95% OF THE
- THE FRAME AND GRATE OR CLOSED LID SHALL BE AS SPECIFIED ON UTILITY PLANS. THE MANHOLE LIDS SHALL BE MACHINE SURFACED, NON-ROCKING DESIGN. ALL CASTINGS SHALL BE EMBOSSED WITH A FISH IMAGE AND "DUMP NO WASTE-DRAINS TO WATERWAYS" MESSAGE. THE CLOSED LIDS SHALL HAVE THE WORD "STORM" AND THE MUNICIPALITY NAME EMBOSSED ON THE LID. THE JOINT BETWEEN CONCRETE SECTION AND FRAME SHALL BE SEALED WITH A MASTIC COMPOUND.
- ALL STORM SEWERS SHALL BE THOROUGHLY CLEANED PRIOR TO FINAL INSPECTION AND TESTING.
- AFTER THE STORM SEWER STRUCTURE HAS BEEN CONSTRUCTED THE CONTRACTOR SHALL PLACE EROSION CONTROL AT LOCATIONS SHOWN ON THE PLANS OR AS SELECTED IN THE FIELD BY THE ENGINEER. THE PURPOSE OF THE EROSION CONTROL WILL BE TO MINIMIZE THE AMOUNT OF SILTATION, WHICH NORMALLY WOULD ENTER THE STORM SEWER SYSTEM FROM ADJECENT AND/OR UPSTREAM

PAVEMENT

A. PRIOR TO THE CONSTRUCTION OF THE CURB AND GUTTER AND THE PLACEMENT OF THE BASE MATERIAL, THE STREETS SHALL BE FINE GRADED TO WITHIN 0.05 FEET OF FINAL SUBGRADE ELEVATION, TO A POINT TWO (2) FEET BEYOND THE BACK OF CURB.

- A. THE TYPE OF THE CURB AND GUTTER SHALL BE AS DETAILED ON THE ENGINEERING PLANS. B. THE CURBS SHALL BE BACKFILLED AFTER THEIR CONSTRUCTION AND PRIOR TO THE PLACEMENT OF
- C. THE STONE UNDER CURB AND GUTTER SHALL BE CONSIDERED INCIDENTAL.
- D. THE CURB DEPRESSIONS FOR DRIVEWAYS AND HANDICAPPED RAMPS SHALL BE INSTALLED PER PLANS AND IDOT STANDARDS.

A. THE PAVEMENT MATERIALS SHALL BE AS DETAILED ON THE ENGINEERING PLANS. THICKNESSES SPECIFIED SHALL BE CONSIDERED TO BE THE MINIMUM COMPACTED THICKNESS.

- THE PAVING CONTRACTOR SHALL:
- A. REPAIR ANY BASE COURSE AND BINDER COURSE FAILURES PRIOR TO THE INSTALLATION OF THE FINAL BITUMINOUS CONCRETE SURFACE COURSE.
- B. SWEEP CLEAN THE BINDER COURSE PRIOR TO THE INSTALLATION OF THE FINAL BITUMINOUS CONCRETE SURFACE COURSE. ANY DAMAGE TO THE BINDER COURSE SHALL BE REPAIRED BY THE CONTRACTORS AT NO ADDITIONAL COST TO THE OWNER.
- D. PROVIDE CONSTRUCTION, EXPANSION, AND CONTRACTION JOINTS FOR CURB AND GUTTER, AND P.C.C. SIDEWALK PER IDOT STANDARDS AND MUNICIPAL STANDARDS.
- E. REMOVE ALL EXCESS MATERIALS AND DEBRIS AND DISPOSE OF OFF-SITE AT NO ADDITIONAL COST

TESTING AND FINAL ACCEPTANCE

A. PRIOR TO THE PLACEMENT OF THE BASE COURSE, THE SUBGRADE MUST BE PROOF ROLLED AND INSPECTED FOR UNSUITABLE SUBGRADE LOCATIONS. IF UNSUITABLE SUBGRADE IS ENCOUNTERED, IT SHALL BE REMOVED AND REPLACED WITH GRANULAR MATERIAL APPROVED BY THE OWNER OR HIS

REPRESENTATIVE. THE SUBGRADE SHALL HAVE MINIMUM IBR VALUE OF 3.0.

- B. PRIOR TO PLACEMENT OF THE BITUMINOUS CONCRETE SURFACE COURSE THE CONTRACTOR, WHEN REQUIRED, SHALL OBTAIN SPECIMENS OF THE BINDER COURSE WITH A CORE DRILL WHERE DIRECTED. FOR THE PURPOSE OF THICKNESS VERIFICATION, IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
- C. FINAL ACCEPTANCE OF THE TOTAL PAVEMENT INSTALLATION SHALL BE SUBJECT TO THE TESTING AND CHECKING REQUIREMENTS CITED ABOVE.

- A. CURB AND GUTTER, AND BASE COURSE SHALL BE MEASURED IN THE FIELD BY THE CONTRACTOR. THE QUANTITIES SHALL BE SUBMITTED TO THE ENGINEER FOR VERIFICATION WHEN REQUESTED BY
- B. WHEN REQUESTED BY THE OWNER, DOCUMENTATION FOR THE INSTALLED BASE COURSE, BITUMINOUS CONCRETE BINDER, AND SURFACE COURSE, SHALL BE SUBMITTED TO THE ENGINEER FOR VERIFICATION. AS REQUIRED BY THE MUNICIPALITY, THE CONTRACTOR SHALL OBTAIN SPECIMENS OF THE BITUMINOUS CONCRETE WITH A CORE DRILL WHERE DIRECTED, IN ORDER TO CONFIRM THE PLAN THICKNESS. DEFICIENCIES IN THICKNESS SHALL BE ADJUSTED FOR BY THE METHOD DESCRIBED IN THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".

IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE PROPER BARRICADING, WARNING DEVICES AND THE SAFE MANAGEMENT OF TRAFFIC WITHIN THE AREA OF CONSTRUCTION. ALL SUCH DEVICES AND THEIR INSTALLATION SHALL CONFORM TO THE ILLINOIS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, LATEST EDITION AND IN ACCORDANCE WITH THE SUBDIVISION CONTROL ORDINANCE OF THE MUNICIPALITY.

8. LONGITUDINAL JOINT CONSTRUCTION:

- A. AS MANY LONGITUDINAL JOINTS AS PRACTICAL SHALL BE CLOSED AT THE END OF EACH DAY OF PAVING. A TACK COAT SHALL BE APPLIED TO THE "COLD" SIDE OF THE LONGITUDINAL JOINT PRIOR TO THE PLACEMENT OF THE HOT SIDE MAT.
- B. LONGITUDINAL JOINT CONSTRUCTION SHALL BE COMPLETED BEFORE THE "COLD" SIDE OF THE JOINT FALLS BELOW 200° F.
- C. IN THE EVENT THE TEMPERATURE OF THE "COLD" SIDE OF A JOINT FALLS BELOW 200° F PRIOR TO JOINT CONSTRUCTION COMPLETION THE CONTRACTOR SHALL PERFORM THE FOLLOWING: 1. HEAT THE COLD SIDE JOINT TO 200° F EITHER BY MEANS OF A HAND TORCH OR AN INFRARED HEATER. CONTRACTOR TO AVOID BURNING ASPHALT DURING REHEATING.
- D. CONTRACTOR SHALL OFFSET SURFACE COURSE JOINTS FROM BINDER COURSE JOINTS WHEREVER

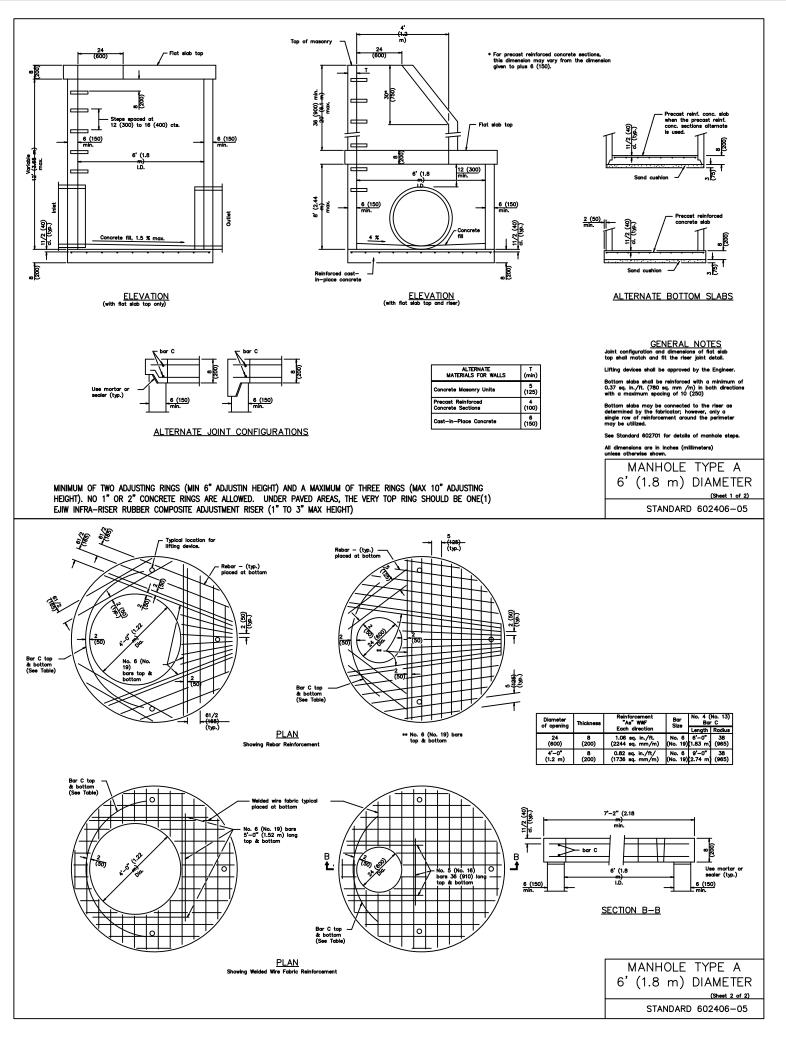
2. APPLY TACK COAT TO REHEATED JOINT PRIOR TO ASPHALT PLACEMENT.

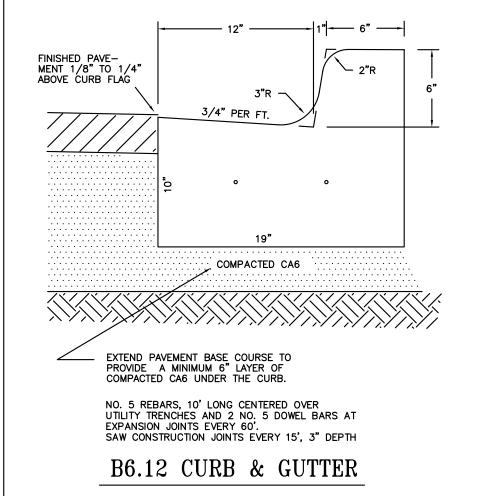
LONGITUDINAL JOINT DENSITY SPECIFICATIONS:

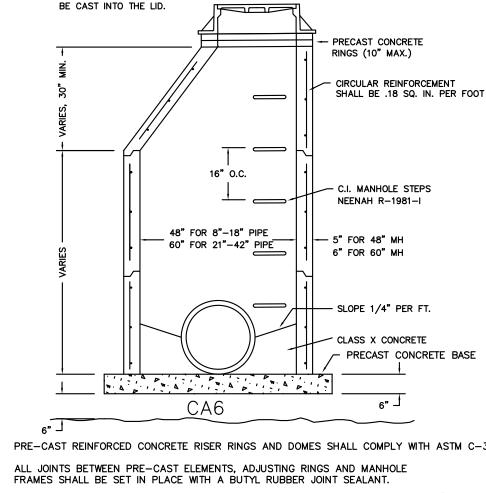
- A. COMPLETED LONGITUDINAL JOINTS SHALL BE ASSESSED BASED ON SECTION 1030 OF THE STANDARD SPECIFICATIONS AND THE HOT MIX ASPHALT - DENSITY TESTING OF LONGITUDINAL JOINTS
- LONGITUDINAL JOINT DENSITY TESTING SHALL BE PERFORMED AT EACH RANDOM DENSITY TEST LOCATION. LONGITUDINAL JOINT TESTING SHALL BE LOCATED AT A DISTANCE EQUAL TO THE LIFT THICKNESS OR A MINIMUM OF 2 IN., FROM EACH PAVEMENT EDGE. (I.E. FOR A 4 IN. LIFT THE NEAR EDGE OF THE DENSITY GAUGE OR CORE BARREL SHALL BE WITHIN 4 IN. FROM THE EDGE OF PAVEMENT). LONGITUDINAL JOINT DENSITY TESTING SHALL BE PERFORMED USING EITHER A CORRELATED NUCLEAR GAUGE OR CORES.
- 1. CONFINED EDGE. EACH CONFINED EDGE DENSITY SHALL BE REPRESENTED BY A ONE-MINUTE NUCLEAR DENSITY READING OR A CORE DENSITY AND SHALL BE INCLUDED IN THE AVERAGE OF DENSITY READINGS OR CORE DENSITIES TAKEN ACROSS THE MAT WHICH REPRESENTS THE
- 2. UNCONFINED EDGE. EACH UNCONFINED EDGE JOINT DENSITY SHALL BE REPRESENTED BY AN AVERAGE OF THREE ONE-MINUTE DENSITY READINGS OR A SINGLE CORE DENSITY AT THE GIVEN DENSITY TEST LOCATION AND SHALL MEET THE DENSITY REQUIREMENTS SPECIFIED HEREIN. THE THREE ONE—MINUTE READINGS SHALL BE SPACED TEN FEET APART LONGITUDINALLY ALONG THE UNCONFINED PAVEMENT EDGE AND CENTERED AT THE RANDOM DENSITY TEST LOCATION.

DENSITY CONTROL LIMITS TABLE

DENOTE CONTROL CHIMO WASE							
MIXTURE COMPOSITION	PARAMETER	INDIVIDUAL TEST (INCLUDES CONFINED EDGES)	UNCONFINED EDGE JOINT DENSITY MINIMUM				
IL-9.5, IL12.5	Ndesign >= 90	92.0-96.0%	90%				
IL-9.5, IL9.5L, IL-12.5	Ndesign < 90	92.5-97.4%	90%				
IL-19.0, IL-25.0	Ndesign >= 90	93.0-96.0%	90%				
IL-19.0, IL-19.0L, IL-25.0	Ndesign < 90	93.0-97.4%	90%				
SMA	Ndesign = 50 & 80	93.5-97.4%	91%				
ALL OTHER	Ndesign = 30	93.0-97.4%	90%				







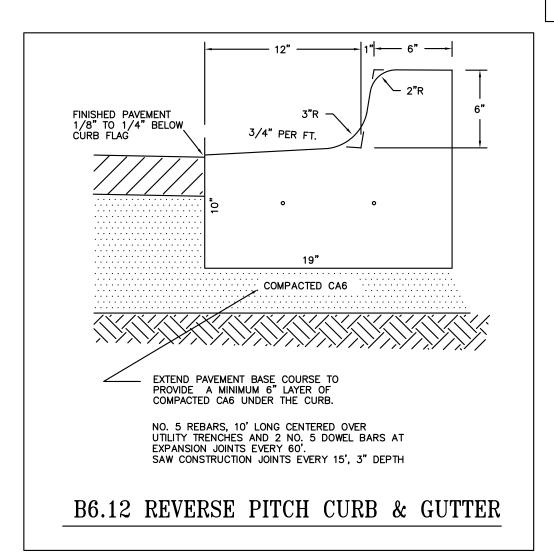
NEENAH R-1031 FRAME

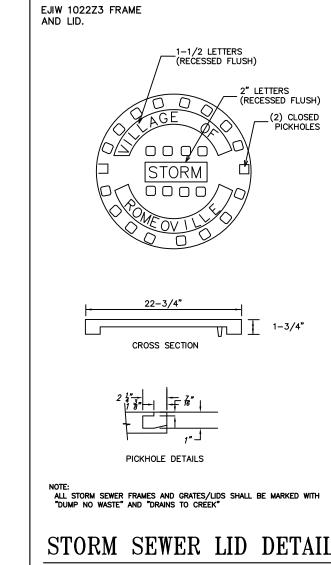
AND GRATE. THE WORDS "STORM" SHALL

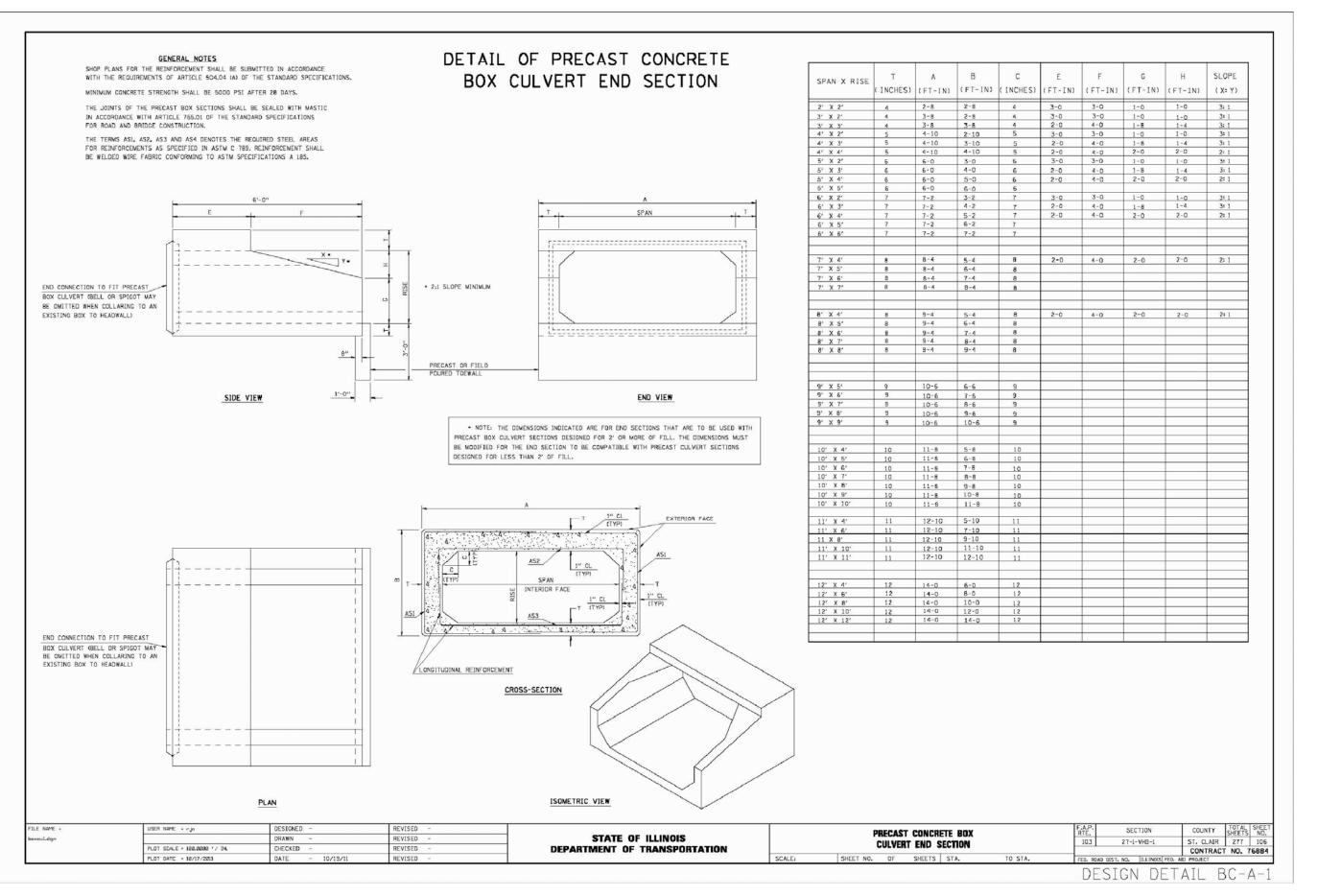
PRE-CAST REINFORCED CONCRETE RISER RINGS AND DOMES SHALL COMPLY WITH ASTM C-39.

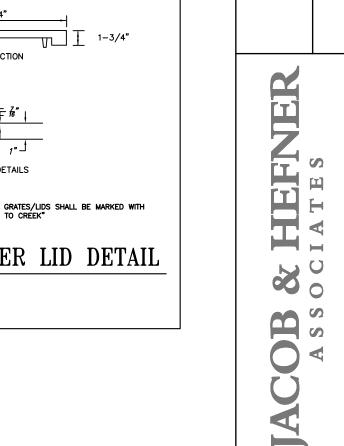
FOR RESTRICTED DEPTH MANHOLES OMIT PRE-CAST CONE SECTION AND PROVIDE 8" THICK REINFORCED CONCRETE FLAT TOP SLAB WITH 24" ECCENTRIC OPENING MINIMUM OF TWO ADJUSTING RINGS (MIN 6" ADJUSTIN HEIGHT) AND A MAXIMUM OF THREE RINGS (MAX 10" ADJUSTING HEIGHT). NO 1" OR 2" CONCRETE RINGS ARE ALLOWED. UNDER PAVED AREAS, THE VERY TOP RING SHOULD BE ONE(1) EJIW INFRA-RISER RUBBER COMPOSITE ADJUSTMENT RISER (1" TO 3" MAX HEIGHT) ALL STORM SEWER FRAME & GRATE/LIDS SHALL BE MARKED WITH "DUMP NO WASTE" AND

STORM SEWER MANHOLE









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