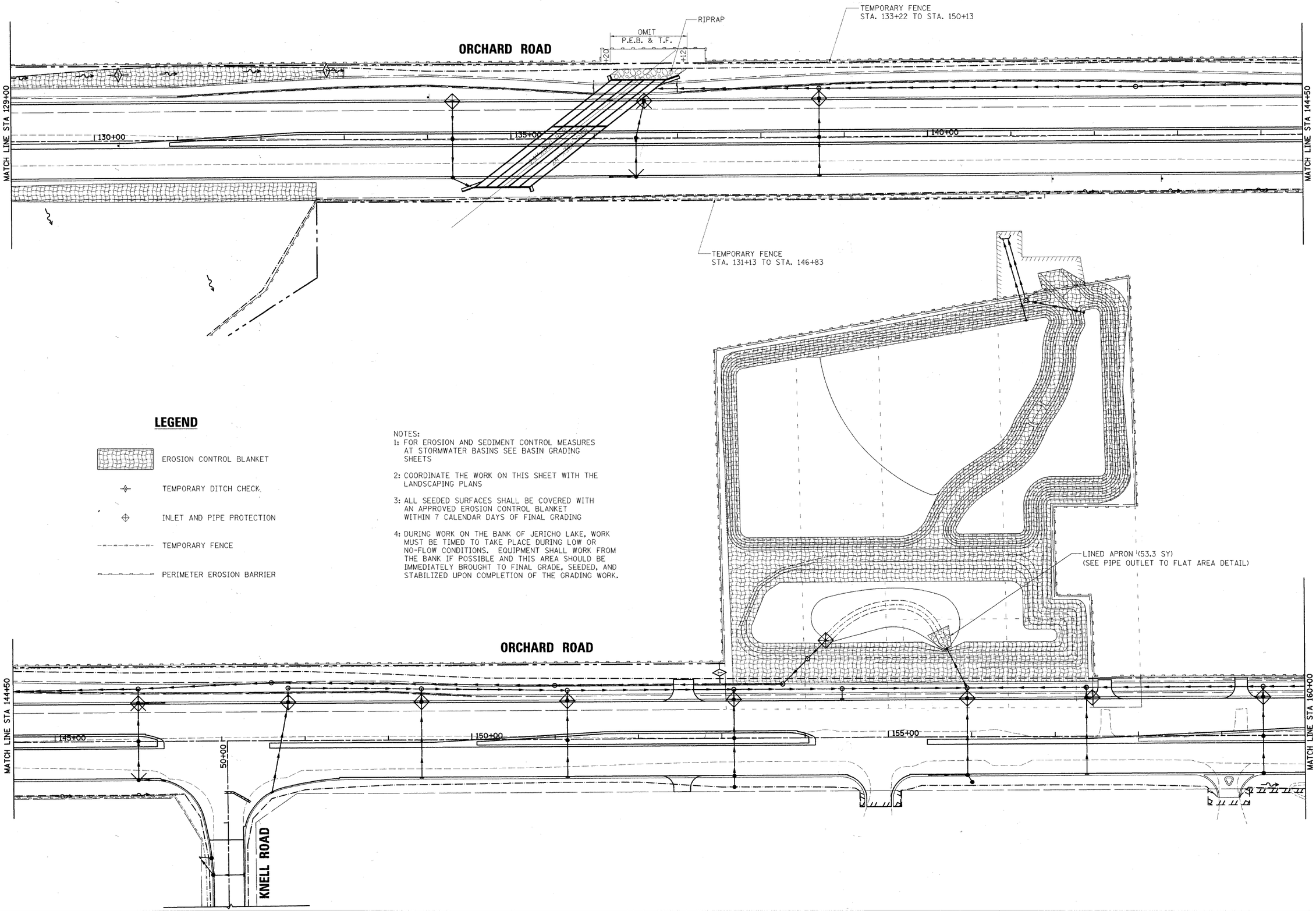


LEGEND

- EROSION CONTROL BLANKET
- TEMPORARY DITCH CHECK
- INLET AND PIPE PROTECTION
- TEMPORARY FENCE
- PERIMETER EROSION BARRIER

NOTES:

1: FOR EROSION AND SEDIMENT CONTROL MEASURES AT STORMWATER BASINS SEE BASIN GRADING SHEETS

2: COORDINATE THE WORK ON THIS SHEET WITH THE LANDSCAPING PLANS

3: ALL SEEDED SURFACES SHALL BE COVERED WITH AN APPROVED EROSION CONTROL BLANKET WITHIN 7 CALENDAR DAYS OF FINAL GRADING

4: DURING WORK ON THE BANK OF JERICHO LAKE, WORK MUST BE TIMED TO TAKE PLACE DURING LOW OR NO-FLOW CONDITIONS. EQUIPMENT SHALL WORK FROM THE BANK IF POSSIBLE AND THIS AREA SHOULD BE IMMEDIATELY BROUGHT TO FINAL GRADE, SEEDED, AND STABILIZED UPON COMPLETION OF THE GRADING WORK.

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED - MK		REVISED -
DRAWN - DW		REVISED -
CHECKED - MH		REVISED -
DATE - 12/20/2010		REVISED -

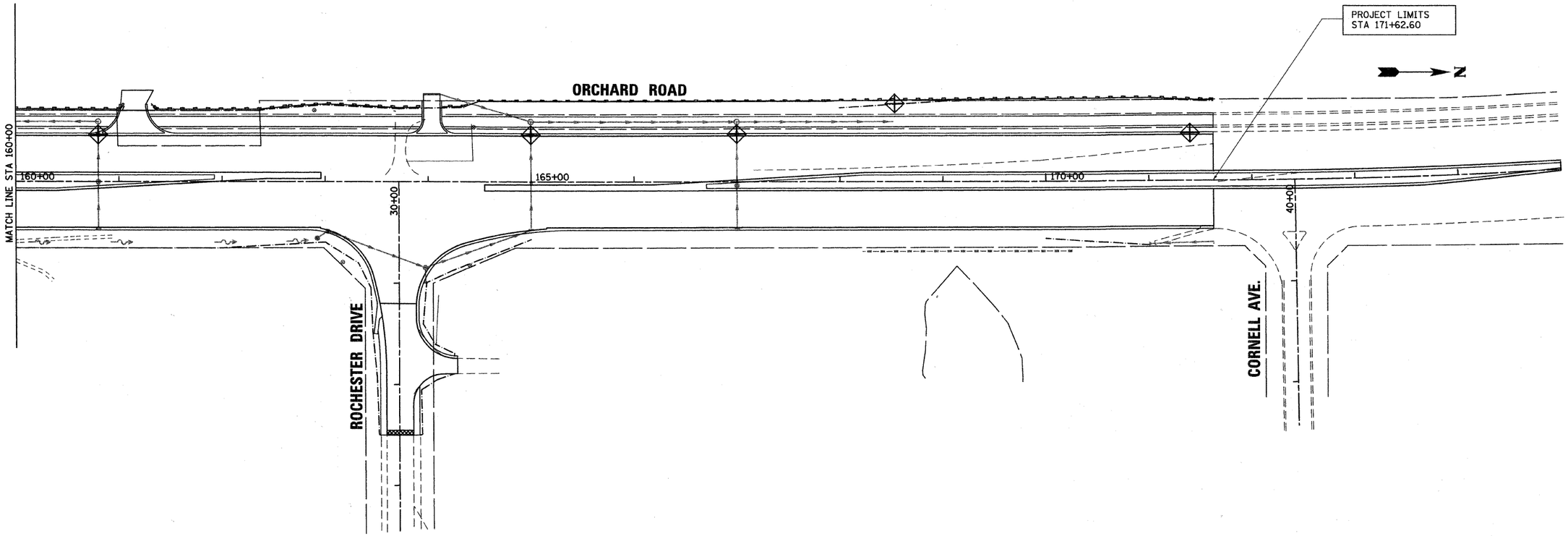
KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

EROSION AND SEDIMENT CONTROL PLAN
STAGE II

SCALE: 1" = 50' | SHEET NO. 3 OF 15 SHEETS | STA. 129+00.00 TO STA. 160+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	101
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

#SCALE$
#USER$
#DATE$
#FILE$



NOTES:
1: COORDINATE THE WORK ON THIS SHEET WITH THE LANDSCAPING PLANS

2: ALL SEEDED SURFACES SHALL BE COVERED WITH AN APPROVED EROSION CONTROL BLANKET WITHIN 7 CALENDAR DAYS OF FINAL GRADING

LEGEND

- EROSION CONTROL BLANKET
- TEMPORARY DITCH CHECK
- INLET AND PIPE PROTECTION
- TEMPORARY FENCE
- PERIMETER EROSION BARRIER

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Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

EROSION AND SEDIMENT CONTROL PLAN
STAGE II

SCALE: 1" = 50' | SHEET NO. 4 OF 15 SHEETS | STA. 160+00.00 TO STA. 175+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	102
		CONTRACT NO. 63541		
	ILLINOIS FED. AID PROJECT			

49.9999 ' / IN.
date plotted
12/17/2010
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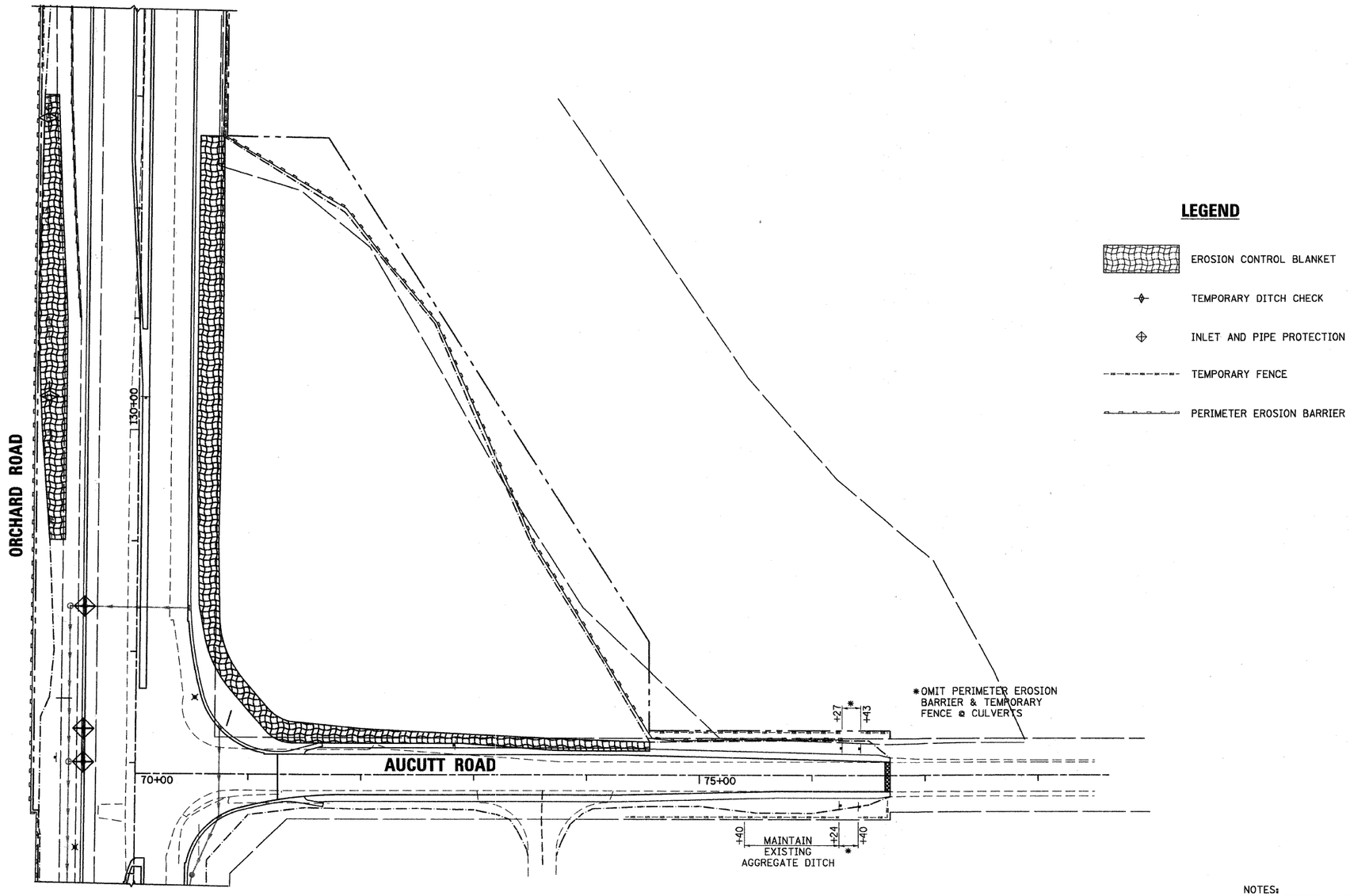

LEGEND

- EROSION CONTROL BLANKET
- TEMPORARY DITCH CHECK
- INLET AND PIPE PROTECTION
- TEMPORARY FENCE
- PERIMETER EROSION BARRIER

NOTES:
1: FOR EROSION AND SEDIMENT CONTROL MEASURES AT STORMWATER BASINS SEE BASIN GRADING SHEETS

2: COORDINATE THE WORK ON THIS SHEET WITH THE LANDSCAPING PLANS

3: ALL SEEDED SURFACES SHALL BE COVERED WITH AN APPROVED EROSION CONTROL BLANKET WITHIN 7 CALENDAR DAYS OF FINAL GRADING

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Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

EROSION AND SEDIMENT CONTROL PLAN
STAGE II

SCALE: 1" = 50' | SHEET NO. 5 OF 15 SHEETS | STA. 70+00.00 TO STA. 78+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	103
		CONTRACT NO. 63541		
		ILLINOIS	FED. AID PROJECT	

49.9999 ' / IN.
dandas
12/17/2010
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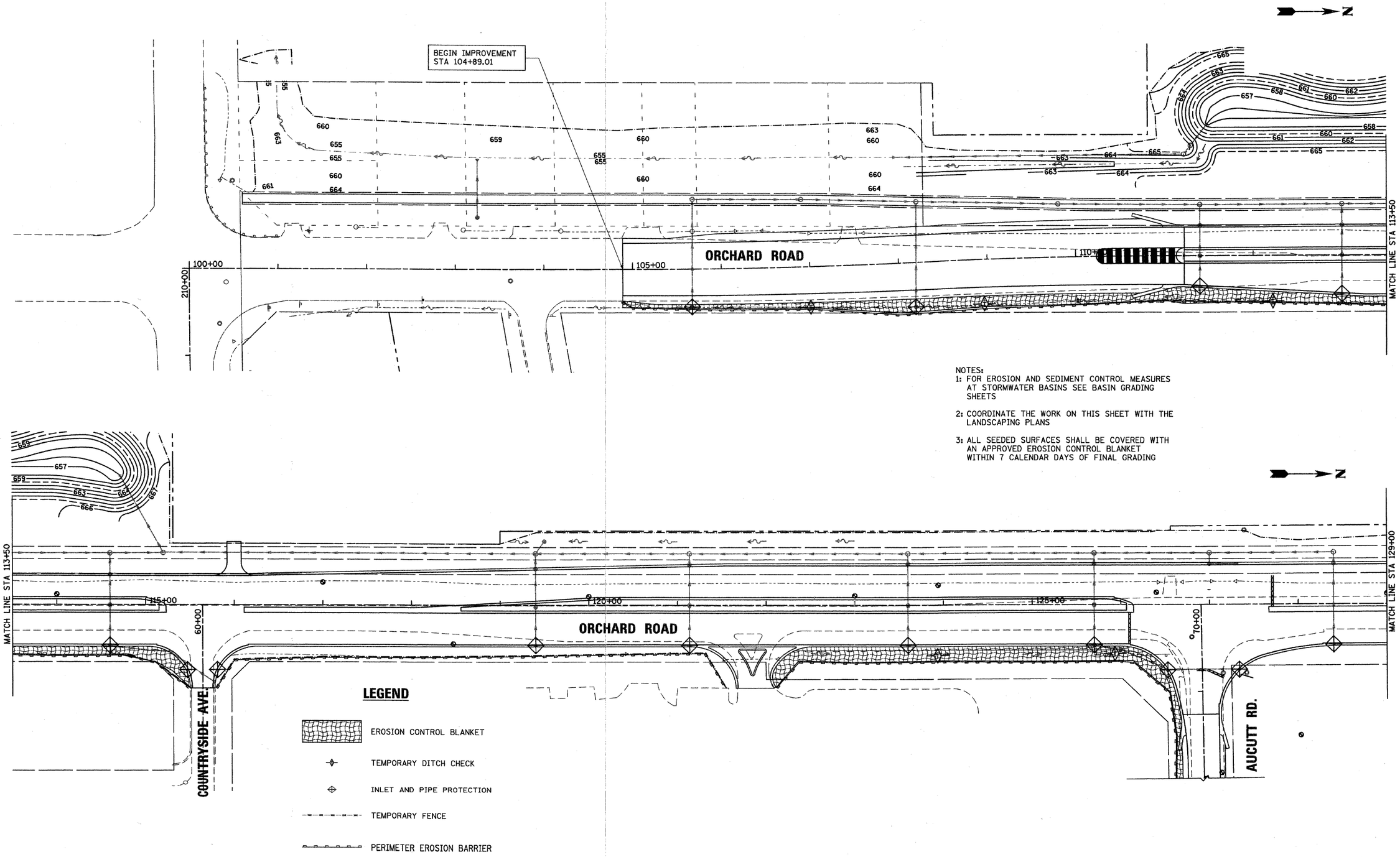

NOTES:
1: FOR EROSION AND SEDIMENT CONTROL MEASURES AT STORMWATER BASINS SEE BASIN GRADING SHEETS

2: COORDINATE THE WORK ON THIS SHEET WITH THE LANDSCAPING PLANS

3: ALL SEEDED SURFACES SHALL BE COVERED WITH AN APPROVED EROSION CONTROL BLANKET WITHIN 7 CALENDAR DAYS OF FINAL GRADING

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Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

EROSION AND SEDIMENT CONTROL PLAN
STAGE III

SCALE: 1" = 50' | SHEET NO. 6 OF 15 SHEETS | STA. 100+00.00 TO STA. 129+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	104
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

49.0099 / IN.
dwdrew
12/17/2010
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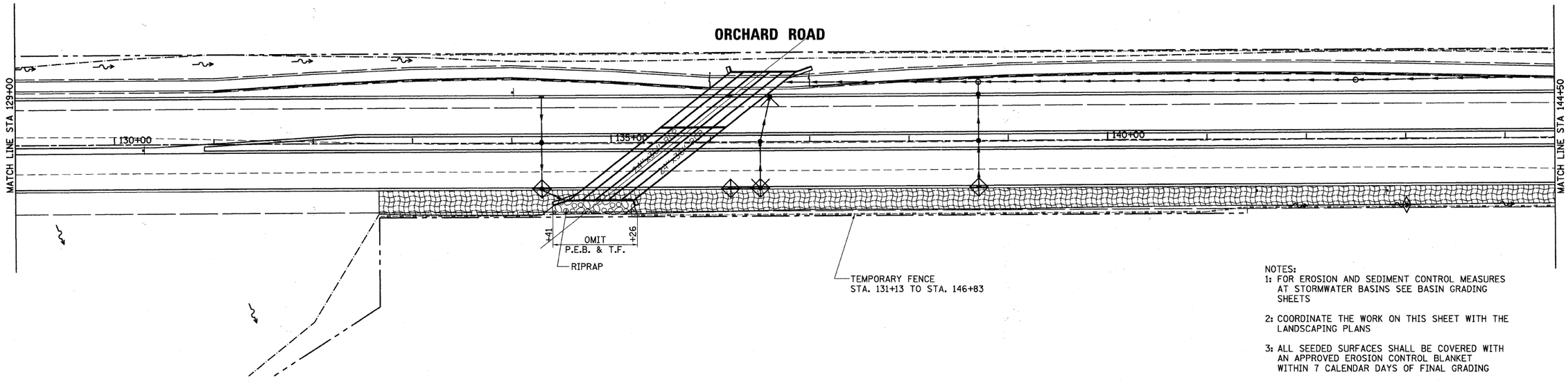
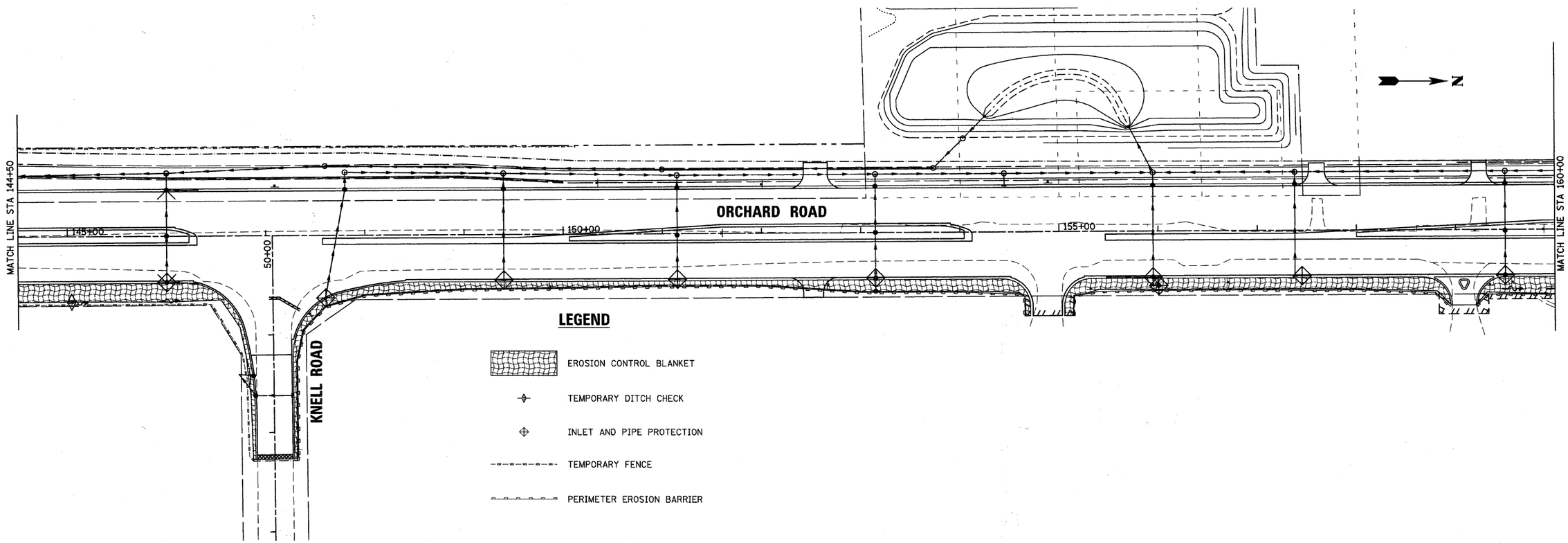


NOTES:
1: FOR EROSION AND SEDIMENT CONTROL MEASURES AT STORMWATER BASINS SEE BASIN GRADING SHEETS

2: COORDINATE THE WORK ON THIS SHEET WITH THE LANDSCAPING PLANS

3: ALL SEEDED SURFACES SHALL BE COVERED WITH AN APPROVED EROSION CONTROL BLANKET WITHIN 7 CALENDAR DAYS OF FINAL GRADING



LEGEND

- EROSION CONTROL BLANKET
- TEMPORARY DITCH CHECK
- INLET AND PIPE PROTECTION
- TEMPORARY FENCE
- PERIMETER EROSION BARRIER

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200 West Front Street
Wheaton, Il 60187

DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

EROSION AND SEDIMENT CONTROL PLAN
STAGE III

SCALE: 1" = 50' | SHEET NO. 7 OF 15 SHEETS | STA. 129+00.00 TO STA. 160+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	105
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

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Grades
1/20/2011
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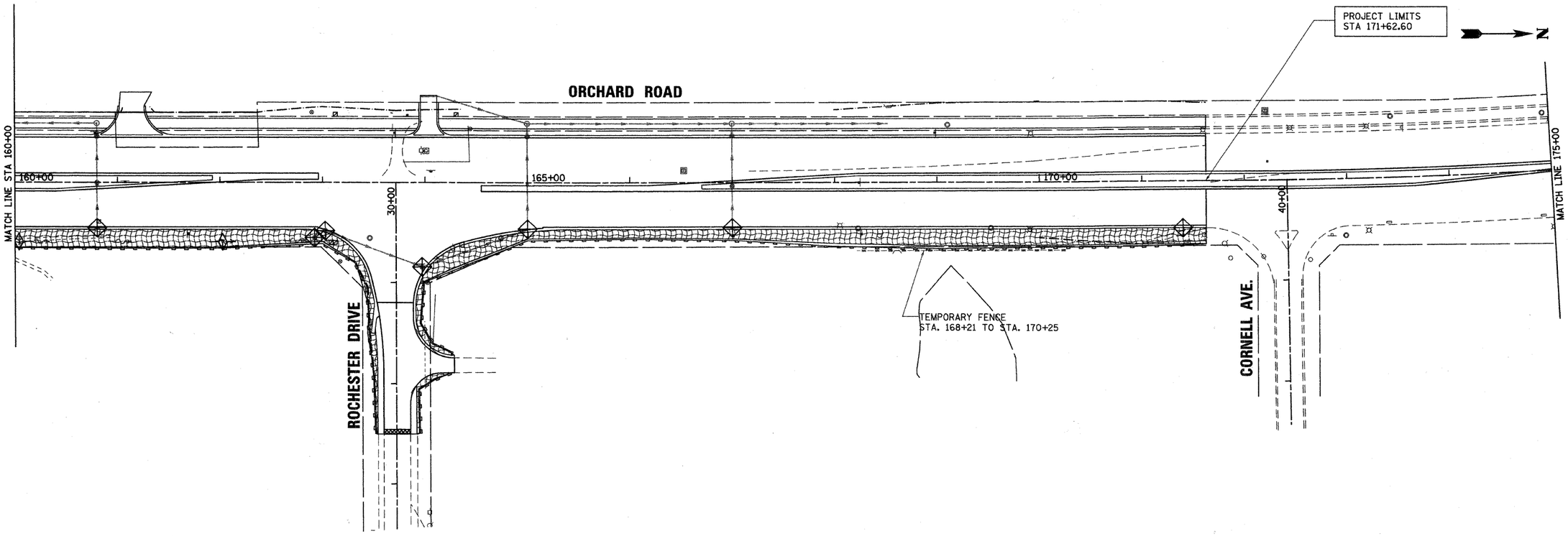

NOTES:
1: COORDINATE THE WORK ON THIS SHEET WITH THE LANDSCAPING PLANS

2: ALL SEEDED SURFACES SHALL BE COVERED WITH AN APPROVED EROSION CONTROL BLANKET WITHIN 7 CALENDAR DAYS OF FINAL GRADING

LEGEND

- EROSION CONTROL BLANKET
- TEMPORARY DITCH CHECK
- INLET AND PIPE PROTECTION
- TEMPORARY FENCE
- PERIMETER EROSION BARRIER

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200 West Front Street
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DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

EROSION AND SEDIMENT CONTROL PLAN
STAGE III

SCALE: 1" = 50' | SHEET NO. 8 OF 15 SHEETS | STA. 160+00.00 TO STA. 175+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	106
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

49.9999 ' / IN.
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12/17/2010
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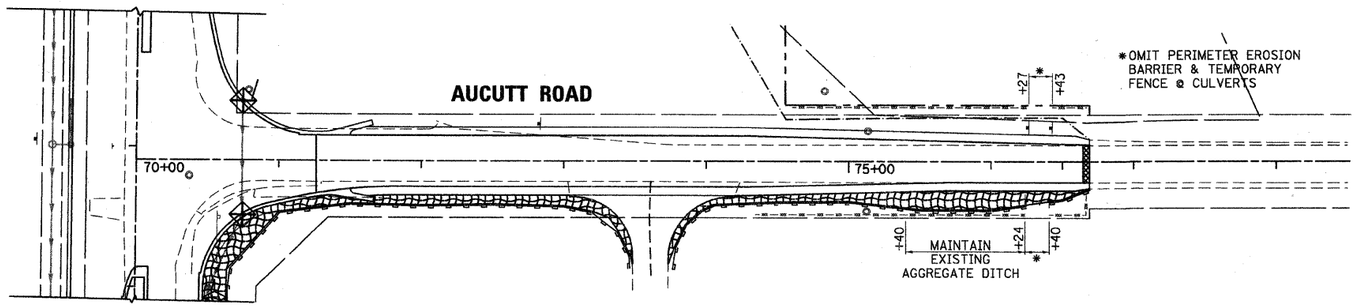

NOTES:
1: FOR EROSION AND SEDIMENT CONTROL MEASURES AT STORMWATER BASINS SEE BASIN GRADING SHEETS

2: COORDINATE THE WORK ON THIS SHEET WITH THE LANDSCAPING PLANS

3: ALL SEEDED SURFACES SHALL BE COVERED WITH AN APPROVED EROSION CONTROL BLANKET WITHIN 7 CALENDAR DAYS OF FINAL GRADING

LEGEND

- EROSION CONTROL BLANKET
- TEMPORARY DITCH CHECK
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- TEMPORARY FENCE
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DESIGNED	MK	REVISED	-
DRAWN	DW	REVISED	-
CHECKED	MH	REVISED	-
DATE	12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

EROSION AND SEDIMENT CONTROL PLAN
STAGE III

SCALE: 1" = 50' | SHEET NO. 9 OF 15 SHEETS | STA. 70+00.00 TO STA. 78+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	107
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

49.9999 ' / IN.
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12/17/2010
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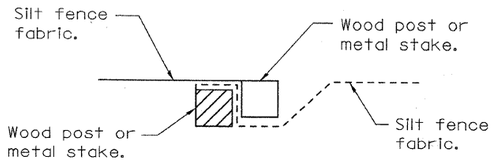
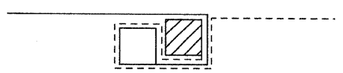


Place end-post (stake) of first silt fence adjacent to end-post (stake) of second silt fence with fabric positioned as swown.

STEP 1

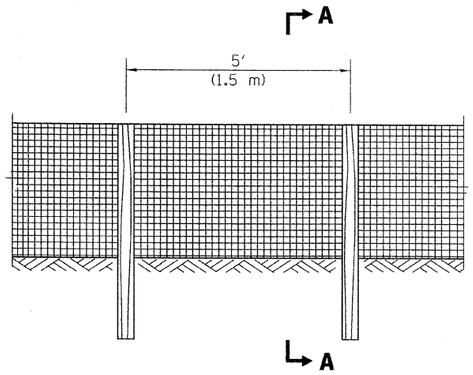


Rotate posts (stakes) together 180° clockwise and drive both posts (stakes) 18 (450) into ground.

STEP 2

ATTACHING TWO SILT FILTER FENCES

(Not applicable for J-hooks)

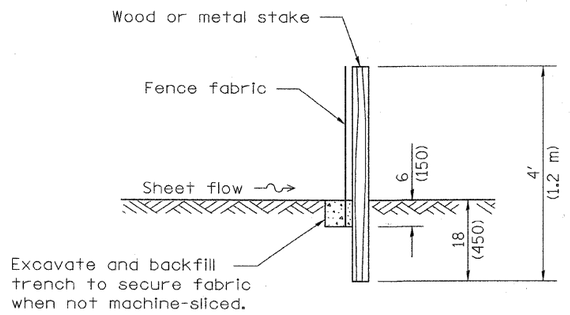


ELEVATION

GENERAL NOTES

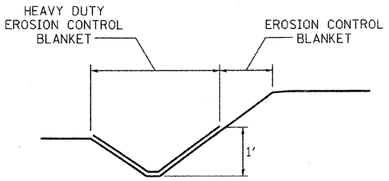
The installation details and dimensions shown for perimeter erosion barriers shall also apply for inlet and pipe protection.

All dimensions are in inches (millimeters) unless otherwise shown.

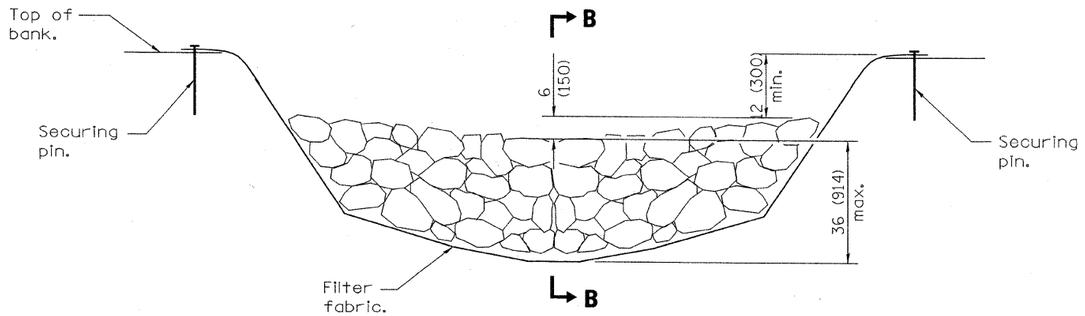


SECTION A–A

SILT FILTER FENCE AS A PERIMETER EROSION BARRIER

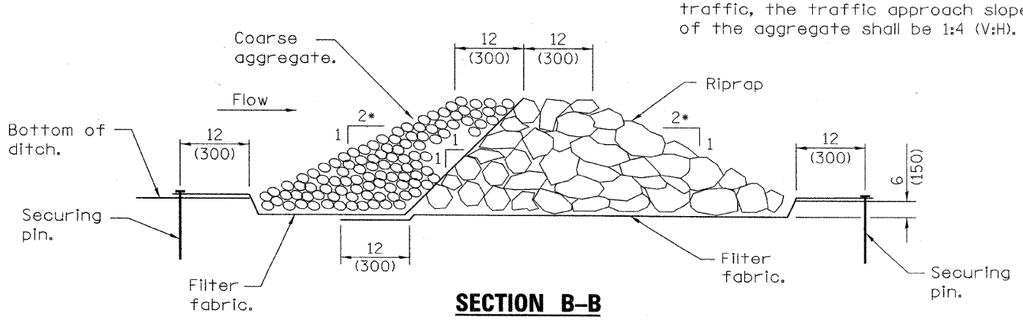


TYPICAL APPLICATION OF HEAVY DUTY EROSION CONTROL BLANKET



ELEVATION

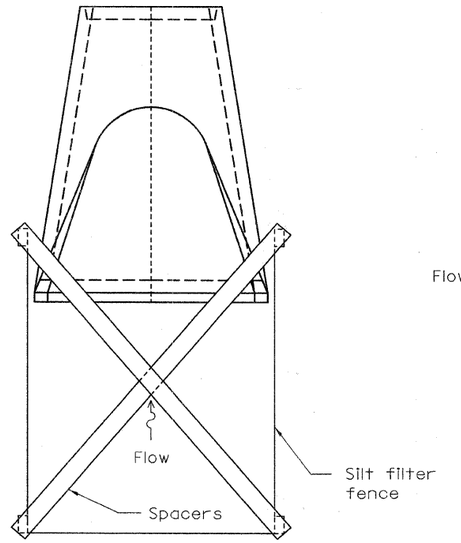
* When the ditch check is within the clear zone and the road is open to traffic, the traffic approach slope of the aggregate shall be 1:4 (V:H).

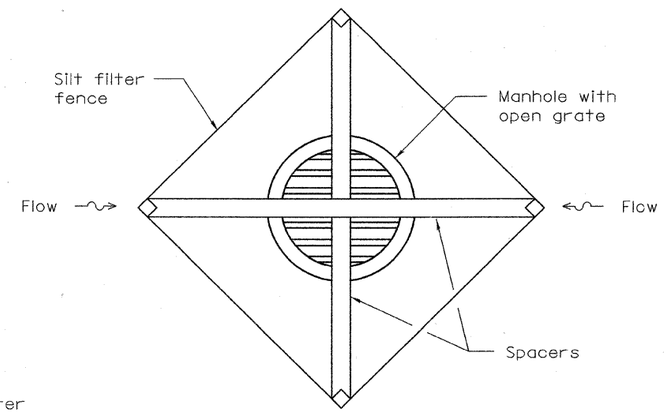


SECTION B–B

AGGREGATE DITCH CHECK

All dimensions are in inches (millimeters) unless otherwise shown.





INLET AND PIPE PROTECTION

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checked
12/17/2010
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rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

EROSION CONTROL DETAILS

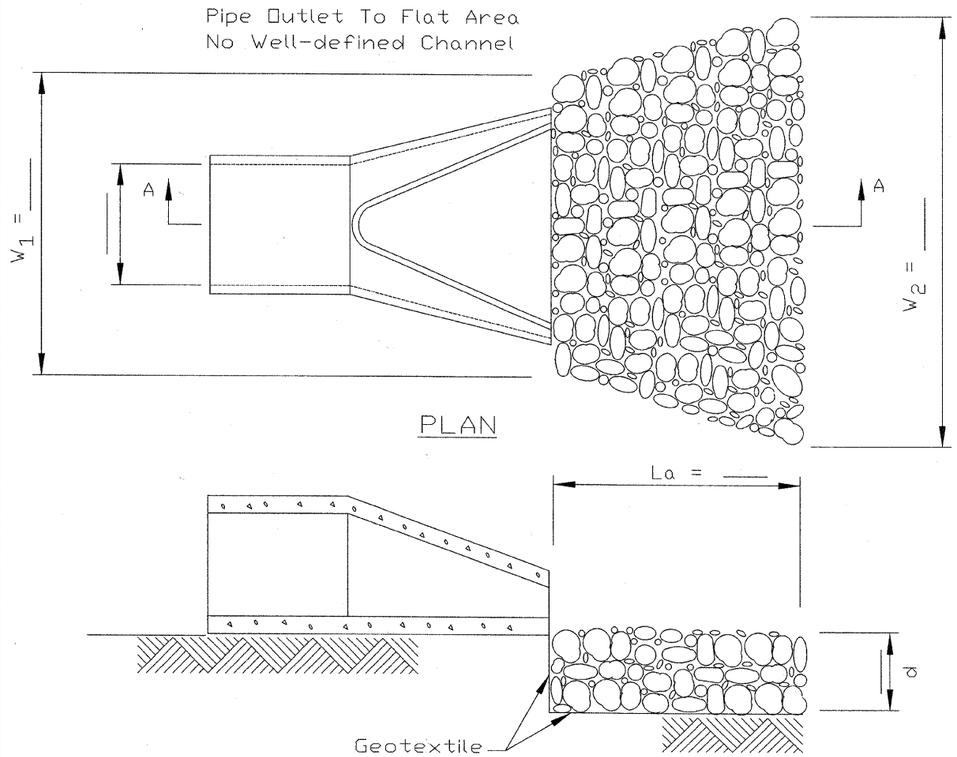
SCALE: NTS | SHEET NO. 10 OF 15 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	108

CONTRACT NO. 63541

ILLINOIS | FED. AID PROJECT

PIPE OUTLET TO FLAT AREA



SECTION A-A

NOTES:

1. The filter fabric shall meet the requirements in material specifications 592 GEOTEXTILE Table II Id or II 2I class , or .
2. The rock riprap shall shall meet the IDOT requirements for the following gradation: ~~RR ——— , Quality~~ .
3. The riprap shall be placed according to construction specification 61 LOOSE ROCK RIPRAP. The rock may be equipment placed.

REFERENCE
Project _____
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

NRCS
Natural Resources Conservation Service

STANDARD DWG. NO.
IL-610
SHEET 1 OF 1
DATE 9-15-93

PIPE OUTLET TO FLAT AREA

RIPRAP SIZE CHART

CULVERT DIA. (IN.)	W_1 (IN.)	W_2 (IN.)	La (FT.)	d (IN.)
12	36	132	10	8
18	54	186	14	8
24	72	216	16	8
30	90	246	18	15
36	108	276	20	15
48	144	336	24	15
60	180	444	32	15
72	216			15
96	288			15

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dw 12/20/2010
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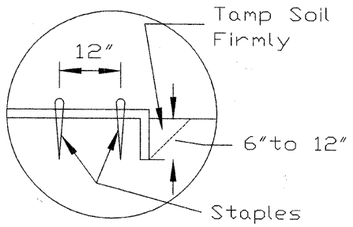
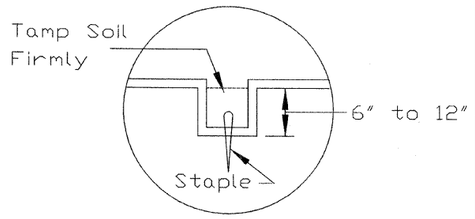
EROSION BLANKET PLAN



Anchor Slot

Jute Mesh
Excelsior Blanket
Erosion Control Paper

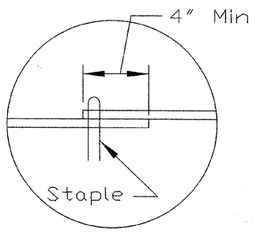
DETAIL 3



Check Slot

Erosion Control Paper

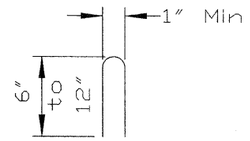
DETAIL 4



Lap Joint

Jute Mesh
Erosion Control Paper
Excelsior Blanket Shall
Be Butted Together.

DETAIL 5



STAPLE DETAIL

NOTES:

1. On erosion control paper, check slots, in ditch channel shall be spaced so that one occurs within each 50' on slopes of more than 4% and less than 6%. On slopes of 6% or more, they shall be spaced so that one occurs within each 25'.
2. Staples are to be placed alternately, in columns approximately 2' apart and in rows approximately 3' apart. Approximately 175 staples are required per 4'x 225' roll of material and 125 staples are required per 4'x 150' roll of material.
3. Erosion control material shall be placed loosely over ground surface. Do not stretch.
4. All terminal ends and transverse laps shall be stapled at approximately 12" intervals.

REFFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

NRCS
Natural Resources Conservation Service

STANDARD DWG. NO.
IL-530
SHEET 2 OF 2
DATE 3-1-95

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED	MK	REVISED	-
DRAWN	DW	REVISED	-
CHECKED	MH	REVISED	-
DATE	12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

EROSION CONTROL DETAILS

SCALE: NTS | SHEET NO. 13 OF 15 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	110
		CONTRACT NO. 63541		
	ILLINOIS FED. AID PROJECT			

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12/17/2010
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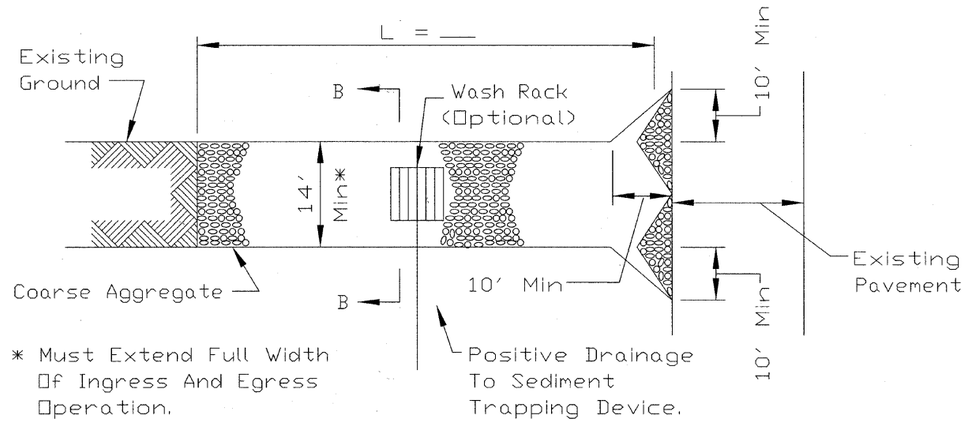
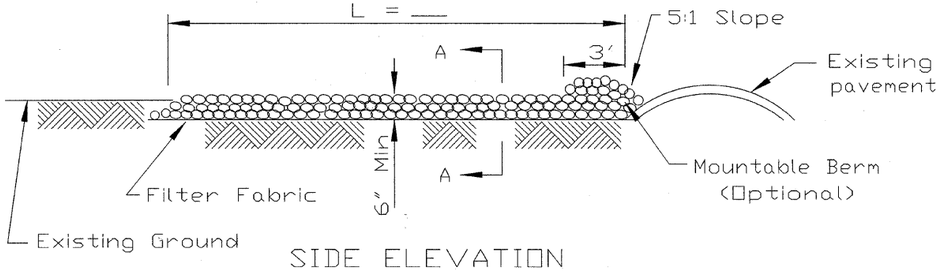
STABILIZED CONSTRUCTION ENTRANCE PLAN



PLAN VIEW



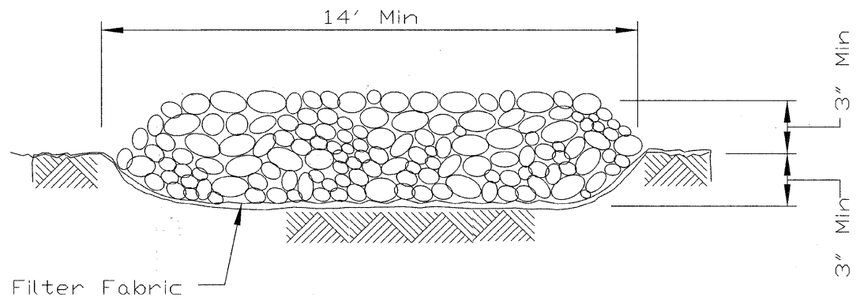
SIDE ELEVATION

NOTES:

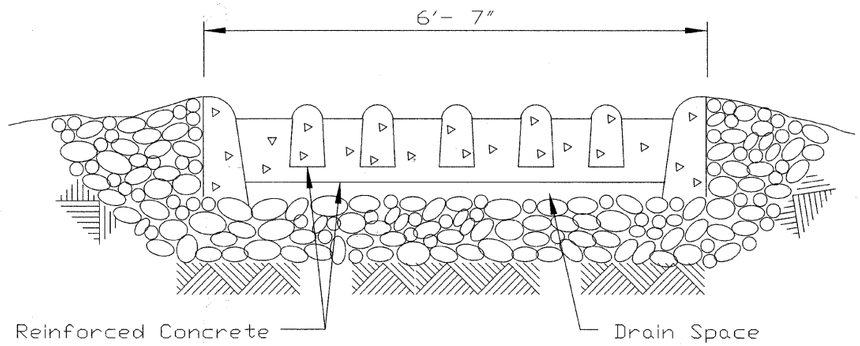
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

REFERENCE		STANDARD DWG. NO.
Project		IL-630
Designed ___ Date ___	NRCS Natural Resources Conservation Service	SHEET 1 OF 2
Checked ___ Date ___		DATE 8-18-94
Approved ___ Date ___		

STABILIZED CONSTRUCTION ENTRANCE PLAN



SECTION A-A



SECTION B-B

REFERENCE		STANDARD DWG. NO.
Project		IL-630
Designed ___ Date ___	NRCS Natural Resources Conservation Service	SHEET 2 OF 2
Checked ___ Date ___		DATE 8-18-94
Approved ___ Date ___		

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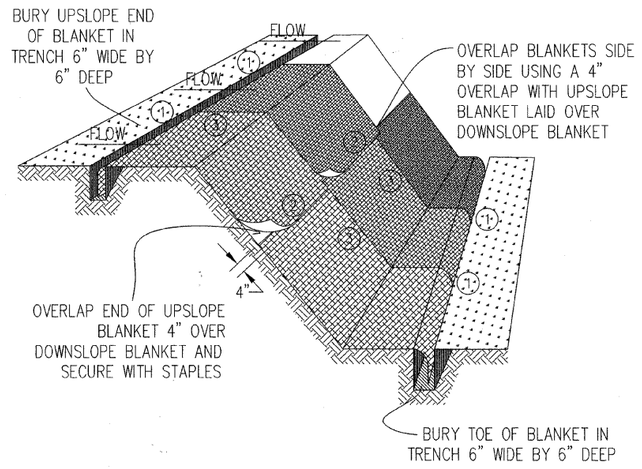
200 West Front Street
Wheaton, Il 60187

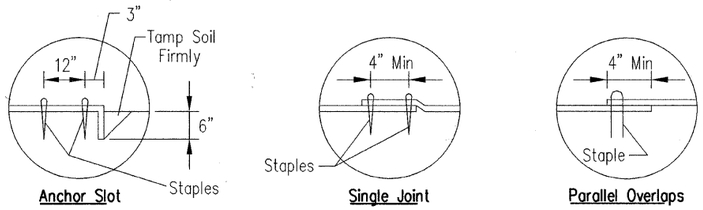
DESIGNED - MK	REVISED -	KANE COUNTY DIVISION OF TRANSPORTATION ORCHARD ROAD RECONSTRUCTION	EROSION CONTROL DETAILS
DRAWN - DW	REVISED -		SCALE: NTS
CHECKED - MH	REVISED -		SHEET NO. 14 OF 15 SHEETS
DATE - 12/20/2010	REVISED -		STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	111
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

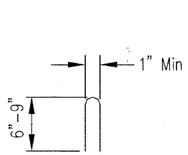
1.0000 = 1 IN.
Updated
1/20/2011
K:\2011\177302\CAD\Sheets\177302-ErosionDetails.dgn

AUTOCAD2006

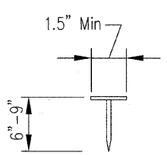




DETAIL 1 **DETAIL 2** **DETAIL 3**



STAPLE DETAIL



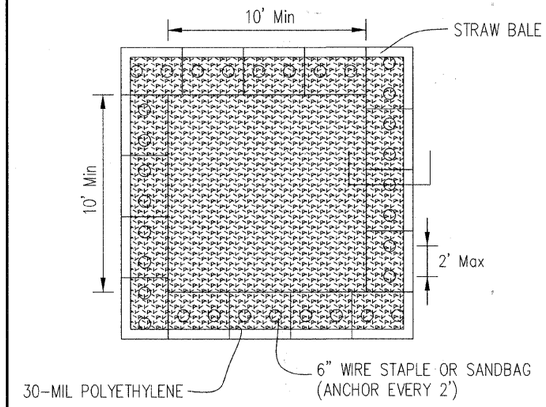
PUSH PIN DETAIL

NOTES:

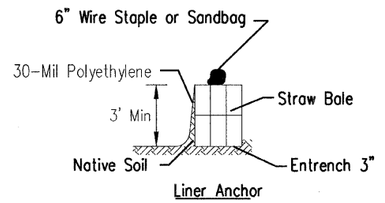
1. Staples shall be placed in a diamond pattern at 2 per s.y. for stiched blankets. Non-stiched shall use 4 staples per s.y. of material. This equates to 200 staples with stiched blanket and 400 stapels with non-stiched blanket per 100 s.y. of material.
2. Staple or push pin lengths shall be selected based on soil type and conditions. (minimum staple length is 6")
3. Erosion control material shall be placed in contact with the soil over a prepared seedbed.
4. All anchor slots shall be stapled at approximately 12" intervals.

Sheet 1 of 1	File No. IUM-530 Drawing No.	EROSION CONTROL BLANKET INSTALLATION DETAILS	Designed	Date
			Drawn B. JOHNSON	11/08
			Checked	
			Approved	

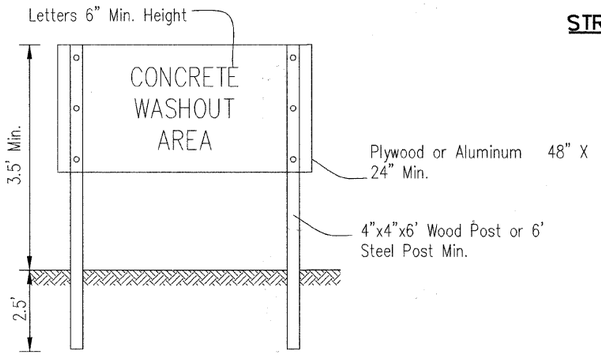
AUTOCAD2006



PLAN VIEW



STRAW BALE ANCHOR SECTIONS



SIGN DETAIL

NOTES:

1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardend concrete and/or slurry and returning the faciliities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.
3. Each straw bale is to be staked in place using (2) 2"x2"x4' wooden stakes.

Sheet 1 of 3	File No. IUM-6548 Drawing No.	TEMPORARY CONCRETE WASHOUT FACILITY - STRAW BALE	Designed	Date
			Drawn B. JOHNSON	6/08
			Checked	
			Approved	

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Wheaton, Il 60187

DESIGNED - MK		REVISED -	
DRAWN - DW		REVISED -	
CHECKED - MH		REVISED -	
DATE - 12/20/2010		REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

EROSION CONTROL DETAILS

SCALE: NTS | SHEET NO. 15 OF 15 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	112
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

1.0000 " / IN.
dwn/dss
1/28/2011
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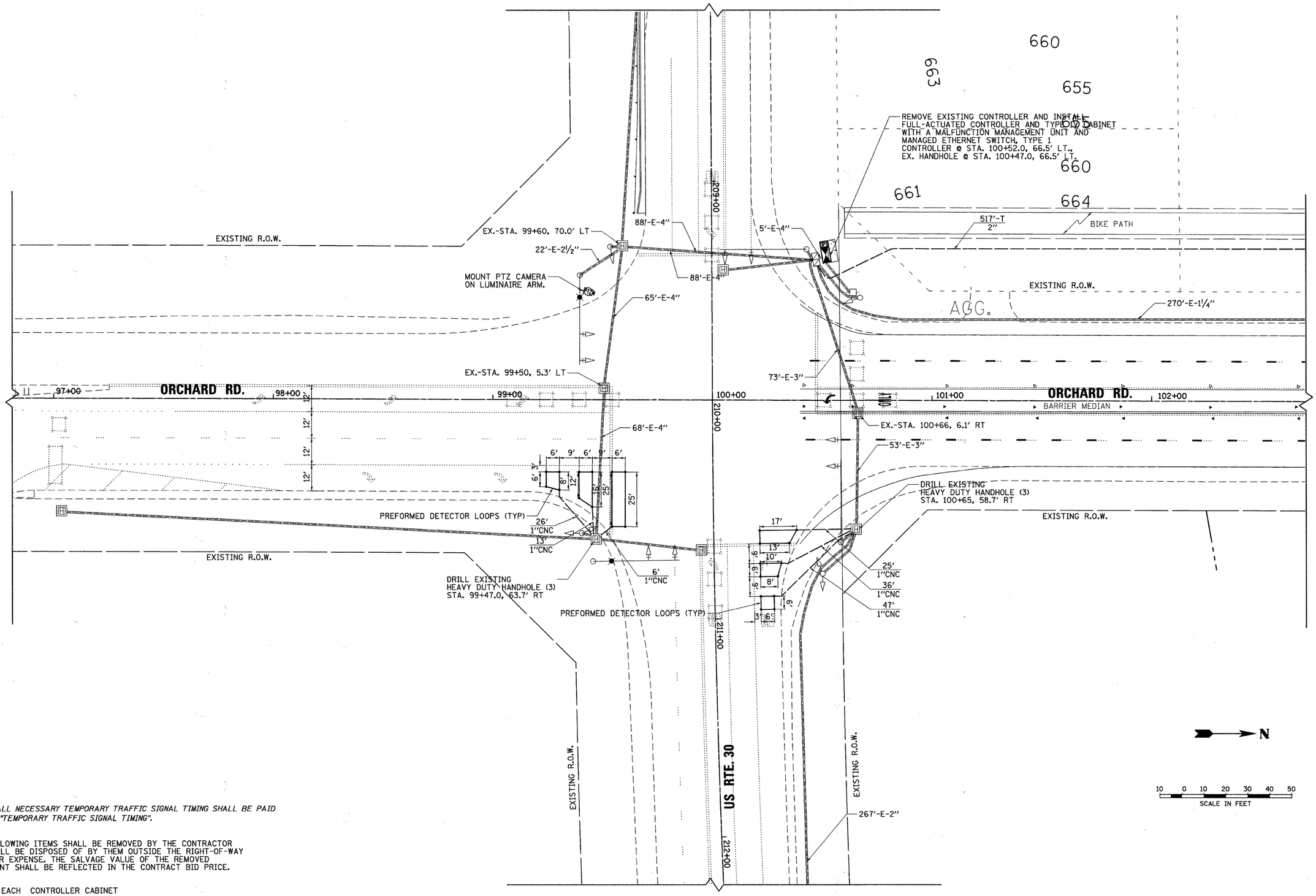

NOTE: ALL NECESSARY TEMPORARY TRAFFIC SIGNAL TIMING SHALL BE PAID FOR AS "TEMPORARY TRAFFIC SIGNAL TIMING".

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

1 EACH CONTROLLER CABINET

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DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

TRAFFIC SIGNAL MODIFICATION PLAN
ORCHARD ROAD AND U.S. RTE.30

SCALE: 1" = 20' | SHEET NO. 1 OF 13 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	113
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

20.8269 / IN.
dwdes
1/20/201
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NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT FOR THE TEMPORARY TRAFFIC SIGNAL SHALL BE FURNISHED BY THE CONTRACTOR UNLESS OTHERWISE STATED IN THE PLANS.

2. CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED, CAPABLE OF SUPPLYING 255 SECONDS OF CYCLE LENGTH AND INDIVIDUAL PHASE LENGTH SETTINGS UP TO 99 SECONDS.

3. A TIME BASE COORDINATING UNIT SHALL BE SUPPLIED WITH EACH TEMPORARY TRAFFIC SIGNAL. COMPATIBLE TIME BASE COORDINATING UNITS SHALL BE SUPPLIED UPON REQUEST TO MATCH ADJACENT SYSTEMS OR ON PROJECTS CONTAINING MULTIPLE SIGNAL INSTALLATIONS. THE CONTROLLER SETTINGS SHALL BE SET IN THE FIELD AS DIRECTED BY THE TEMPORARY TRAFFIC SIGNAL TIMING CONSULTANT AS APPROVED BY KDOT TRAFFIC.

4. ALL TRAFFIC SIGNAL SECTIONS SHALL BE 12 INCHES. THE TEMPORARY TRAFFIC SIGNAL HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. ALL TEMPERARY TRAFFIC SIGNAL HEADS SHALL BE LED. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.

5. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED, AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE.

6. ALL LABOR AND MATERIAL TO COMPLY WITH THESE REQUIREMENTS SHALL BE INCLUDED IN THE BID PRICE OF "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

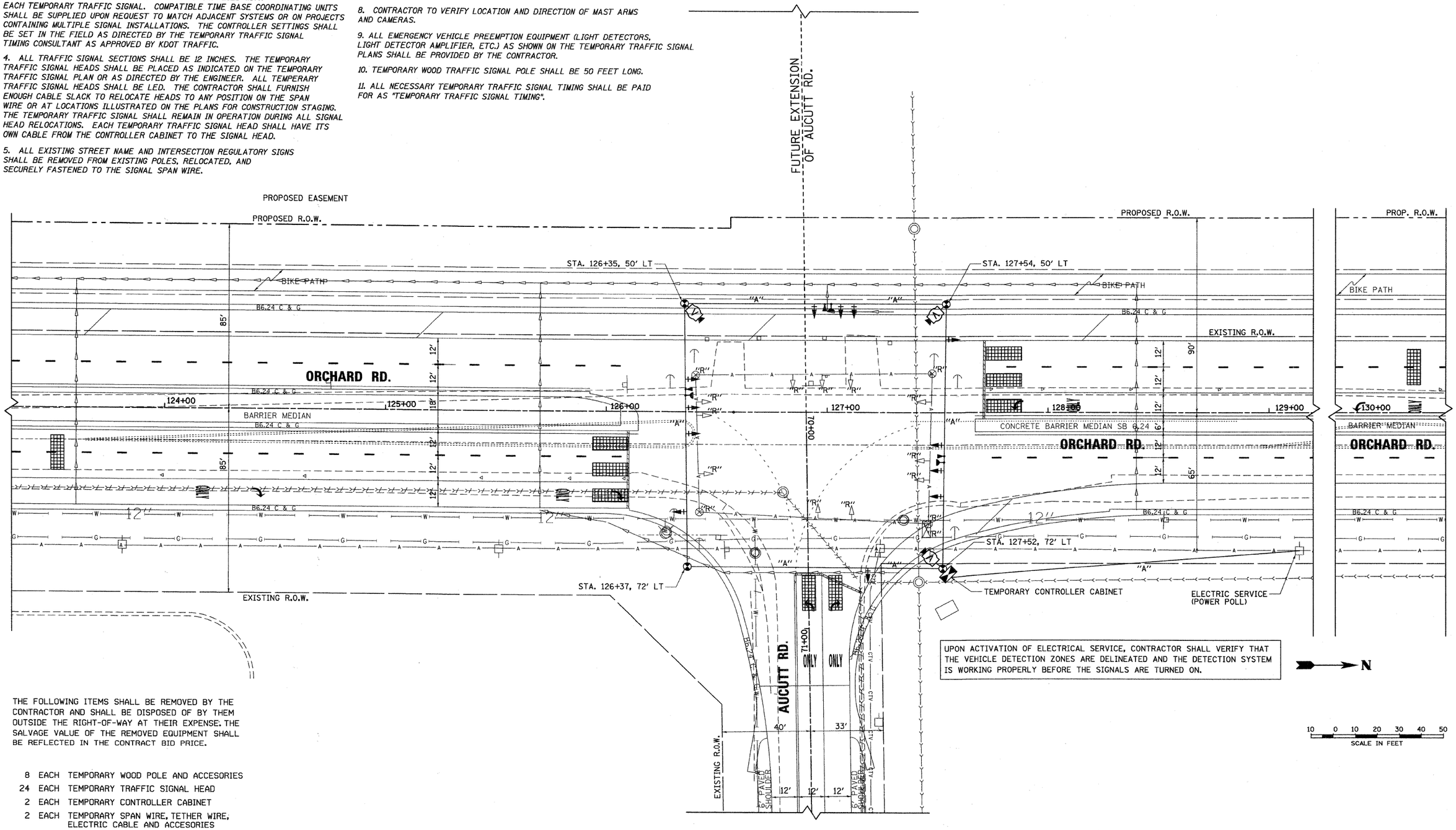
7. TEMPORARY VIDEO DETECTION SYSTEM AND TEMPORARY LIGHTING SHALL BE CONSIDERED AS PART OF THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

8. CONTRACTOR TO VERIFY LOCATION AND DIRECTION OF MAST ARMS AND CAMERAS.

9. ALL EMERGENCY VEHICLE PREEMPTION EQUIPMENT (LIGHT DETECTORS, LIGHT DETECTOR AMPLIFIER, ETC.) AS SHOWN ON THE TEMPORARY TRAFFIC SIGNAL PLANS SHALL BE PROVIDED BY THE CONTRACTOR.

10. TEMPORARY WOOD TRAFFIC SIGNAL POLE SHALL BE 50 FEET LONG.

11. ALL NECESSARY TEMPORARY TRAFFIC SIGNAL TIMING SHALL BE PAID FOR AS "TEMPORARY TRAFFIC SIGNAL TIMING".



UPON ACTIVATION OF ELECTRICAL SERVICE, CONTRACTOR SHALL VERIFY THAT THE VEHICLE DETECTION ZONES ARE DELINEATED AND THE DETECTION SYSTEM IS WORKING PROPERLY BEFORE THE SIGNALS ARE TURNED ON.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

8	EACH	TEMPORARY WOOD POLE AND ACCESORIES
24	EACH	TEMPORARY TRAFFIC SIGNAL HEAD
2	EACH	TEMPORARY CONTROLLER CABINET
2	EACH	TEMPORARY SPAN WIRE, TETHER WIRE, ELECTRIC CABLE AND ACCESORIES

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200 West Front Street
Wheaton, Il 60187

DESIGNED - MK		REVISED -
DRAWN - DW		REVISED -
CHECKED - MH		REVISED -
DATE - 12/20/2010		REVISED -

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND EXISTING TRAFFIC SIGNAL REMOVAL PLAN
ORCHARD ROAD AND AUCUTT ROAD

SCALE: 1" = 20' | SHEET NO. 2 OF 13 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	114
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

28.0000 / / IN.
dw:plot
12/17/2010
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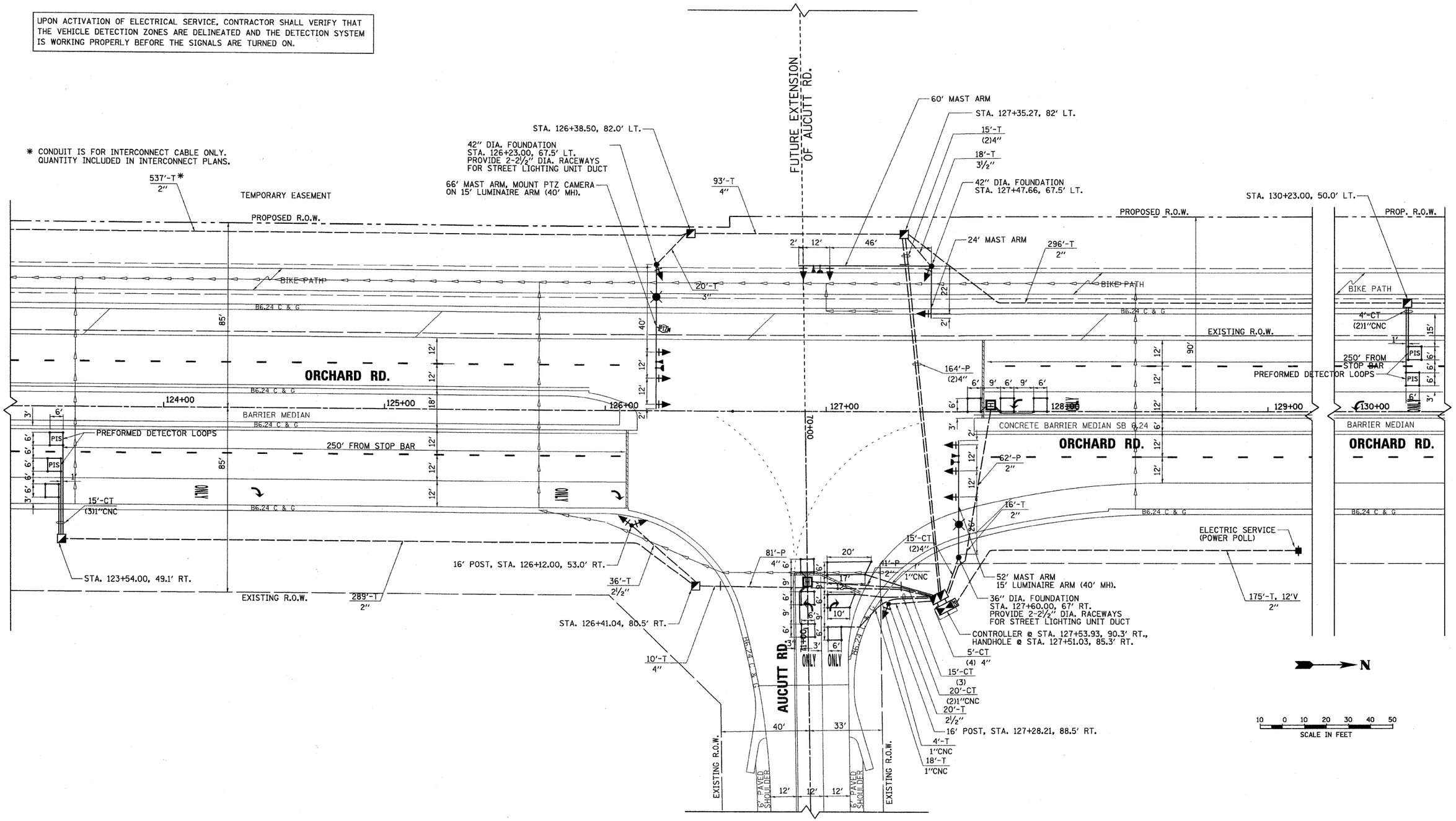
UPON ACTIVATION OF ELECTRICAL SERVICE, CONTRACTOR SHALL VERIFY THAT THE VEHICLE DETECTION ZONES ARE DELINEATED AND THE DETECTION SYSTEM IS WORKING PROPERLY BEFORE THE SIGNALS ARE TURNED ON.



DESIGNED	MK	REVISED	-
DRAWN	DW	REVISED	-
CHECKED	MH	REVISED	-
DATE	12/20/2010	REVISED	-

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Wheaton, Il 60187

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

TRAFFIC SIGNAL INSTALLATION PLAN
ORCHARD ROAD AND AUCUTT ROAD

SCALE: 1" = 20' | SHEET NO. 3 OF 13 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	115
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

20.00000 ' / IN.
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12/17/2010
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NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT FOR THE TEMPORARY TRAFFIC SIGNAL SHALL BE FURNISHED BY THE CONTRACTOR UNLESS OTHERWISE STATED IN THE PLANS.

2. ALL NEW TRAFFIC SIGNAL SECTIONS SHALL BE 12 INCHES. THE TEMPORARY TRAFFIC SIGNAL HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. ALL TEMPERARY TRAFFIC SIGNAL HEADS SHALL BE LED. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.

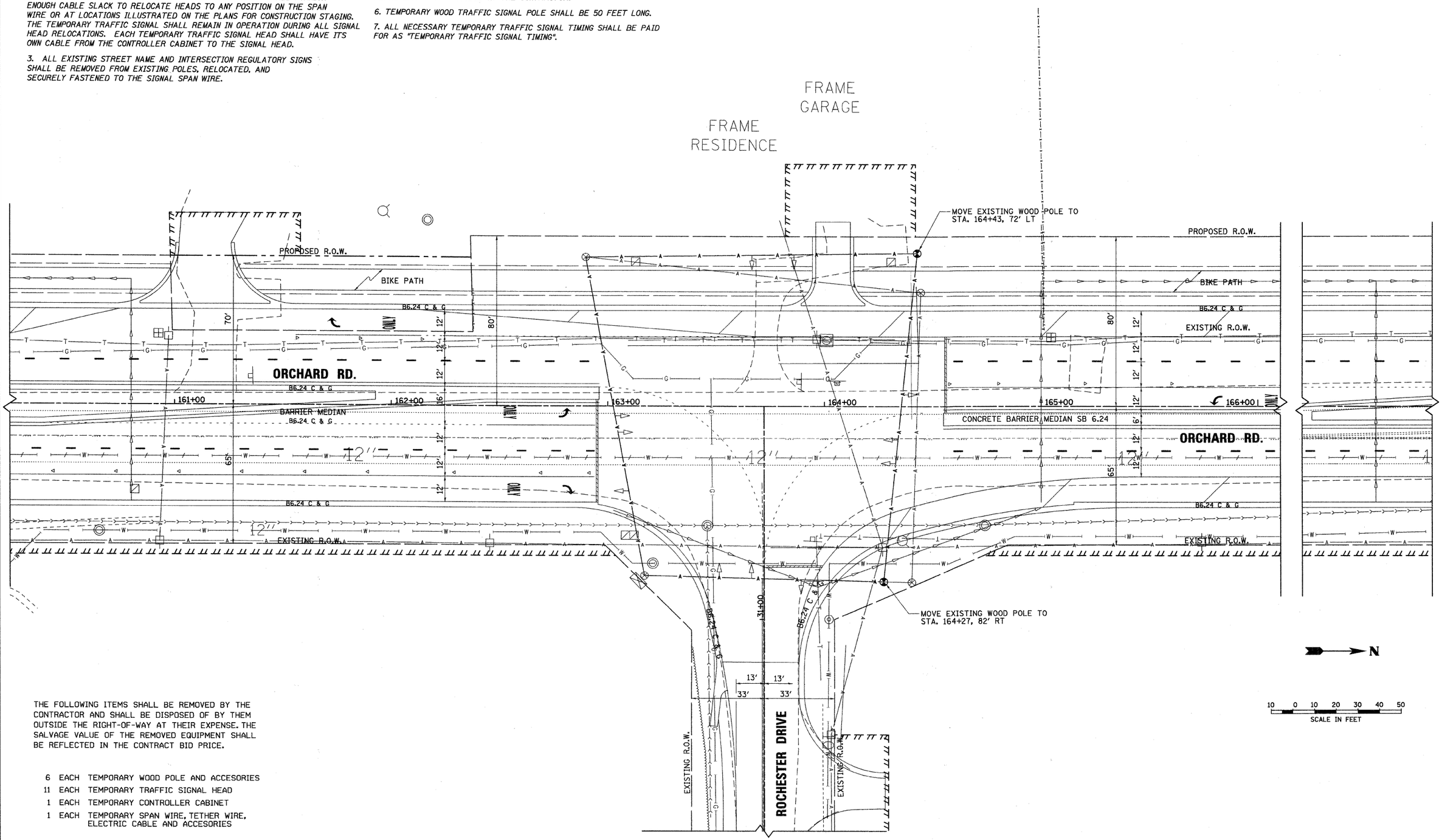
3. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED, AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE.

4. ALL LABOR AND MATERIAL TO COMPLY WITH THESE REQUIREMENTS SHALL BE INCLUDED IN THE BID PRICE OF "MODIFY TEMPORARY TRAFFIC SIGNAL INSTALLATION".

5. ALL EMERGENCY VEHICLE PREEMPTION EQUIPMENT (LIGHT DETECTORS, LIGHT DETECTOR AMPLIFIER, ETC.) AS SHOWN ON THE TEMPORARY TRAFFIC SIGNAL PLANS SHALL BE PROVIDED BY THE CONTRACTOR.

6. TEMPORARY WOOD TRAFFIC SIGNAL POLE SHALL BE 50 FEET LONG.

7. ALL NECESSARY TEMPORARY TRAFFIC SIGNAL TIMING SHALL BE PAID FOR AS "TEMPORARY TRAFFIC SIGNAL TIMING".



THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

6	EACH	TEMPORARY WOOD POLE AND ACCESORIES
11	EACH	TEMPORARY TRAFFIC SIGNAL HEAD
1	EACH	TEMPORARY CONTROLLER CABINET
1	EACH	TEMPORARY SPAN WIRE, TETHER WIRE, ELECTRIC CABLE AND ACCESORIES

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CHECKED - MH		REVISED -
DATE - 12/20/2010		REVISED -

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

EXISTING TEMPORARY TRAFFIC SIGNALS AND REMOVAL PLANS
ORCHARD ROAD AND ROCHESTER DRIVE

SCALE: 1" = 20' | SHEET NO. 4 OF 13 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	116
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

28.8000 ' / IN.
dwebb
12/17/2010
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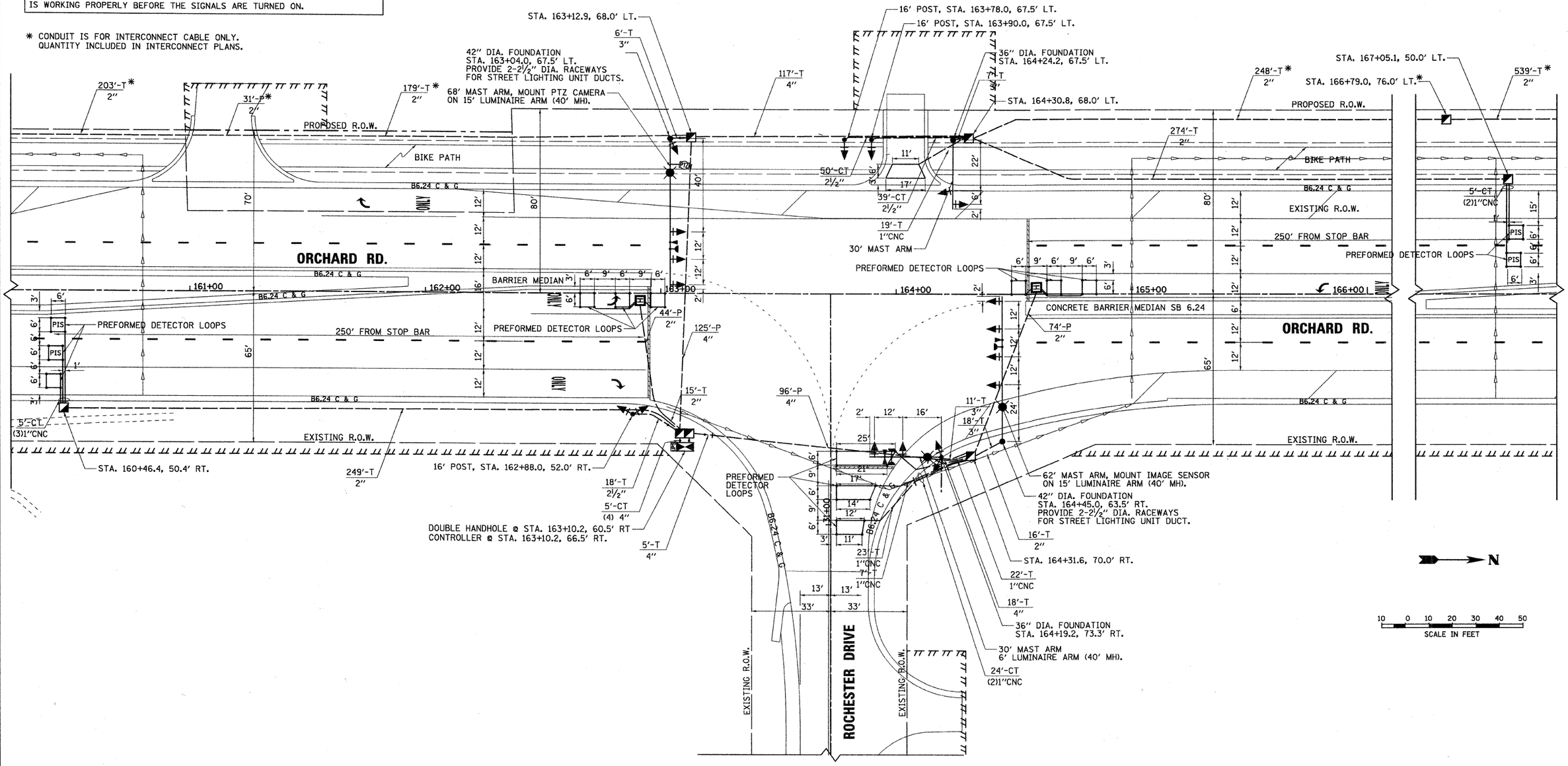
UPON ACTIVATION OF ELECTRICAL SERVICE, CONTRACTOR SHALL VERIFY THAT THE VEHICLE DETECTION ZONES ARE DELINEATED AND THE DETECTION SYSTEM IS WORKING PROPERLY BEFORE THE SIGNALS ARE TURNED ON.

* CONDUIT IS FOR INTERCONNECT CABLE ONLY.
QUANTITY INCLUDED IN INTERCONNECT PLANS.



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200 West Front Street
Wheaton, Il 60187

DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

TRAFFIC SIGNAL INSTALLATION PLAN
ORCHARD ROAD AND ROCHESTER DRIVE

SCALE: 1" = 20' | SHEET NO. 5 OF 13 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	117
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

20.00000 / / IN.
date/time
12/17/2010
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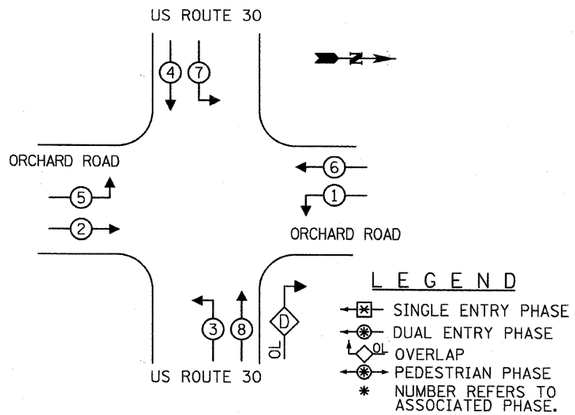
CONTROLLER SEQUENCE

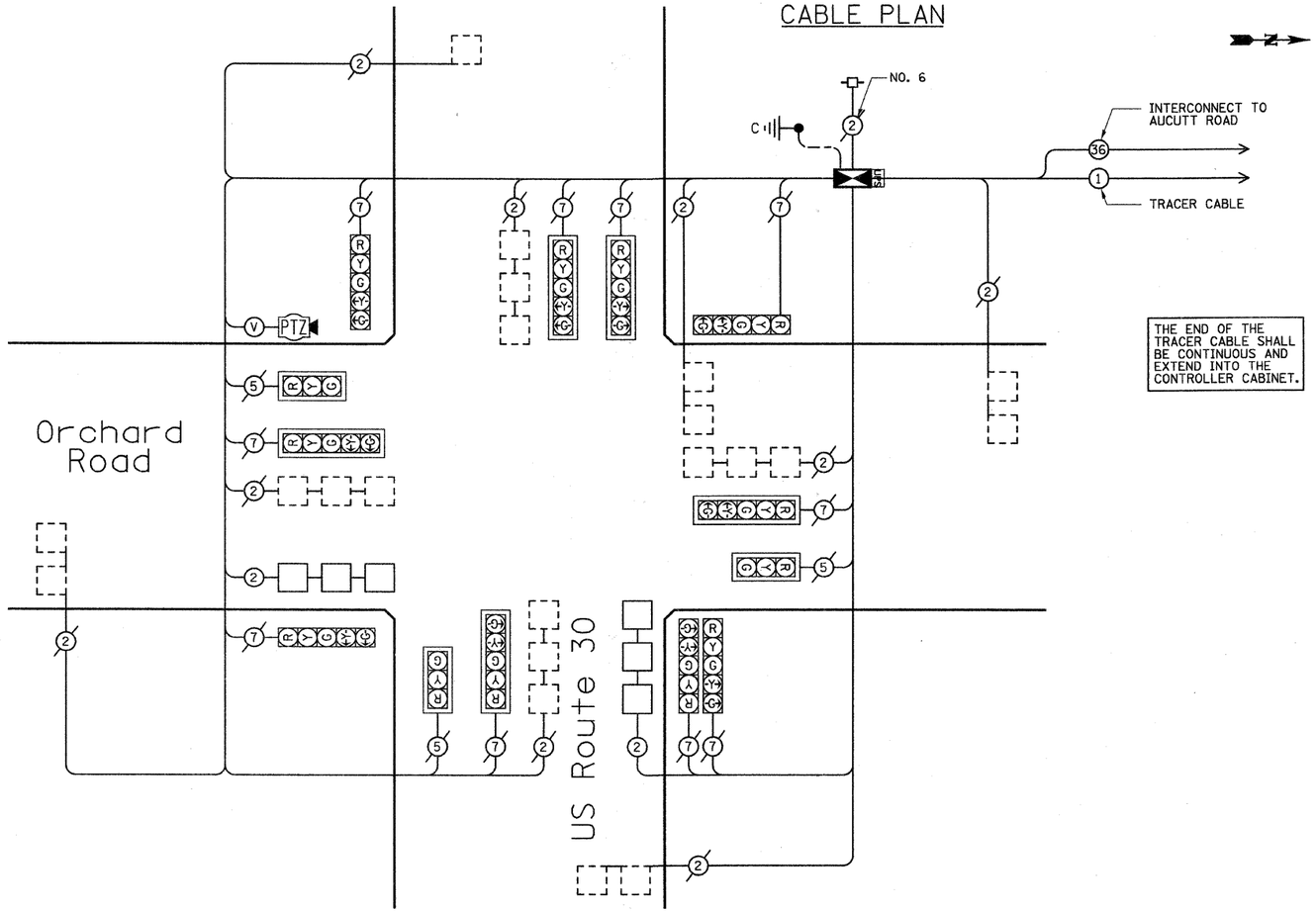


PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
D	=	8	+	1

CABLE PLAN



THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE	% OPERATIONS	
SIGNAL (RED)	13	17	0.50	110.5
(YELLOW)	13	25	0.25	81.3
(GREEN)	13	15	0.25	48.8
ARROW	20	12	0.10	24.0
PED. SIGNAL	0	25	1.00	0
CONTROLLER	1	100	1.00	100.0
ILLUM. SIGN				0
VIDEO SYSTEM	1	150	1.00	150.0
FLASHER LED			0.50	
BILL COSTS TO:			TOTAL =	514.6

ILLINOIS DEPARTMENT OF TRANSPORATATION
DIVISION OF HIGHWAY/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
ENERGY SUPPLY - CONTACT: Mr. Al Arends
PHONE: (630) 691-4379
COMPANY: Com Ed: Customer Const. & Design

SCHEDULE OF QUANTITIES

1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, STANDARD
2,144	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14, 1PR
8	EACH	DRILL EXISTING HEAVY DUTY HANDHOLE
2	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	REMOVE EXISTING TRAFFIC CONTROLLER AND CABINET
192	FOOT	COAXIAL CABLE IN CONDUIT
1	EACH	VIDEO MONITORING PTZ CAMERA SYSTEM
460	FOOT	PREFORMED DETECTOR LOOP
192	FOOT	POWER LEAD CABLE VIDEO NO. 12, 3/C
7	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
1	EACH	MALFUNCTION MANAGEMENT UNIT, SPECIAL
1	EACH	MANAGED ETHERNET SWITCH, TYPE 1

NOTES:
1. TRAFFIC CONTROL EQUIPMENT SHALL BE MANUFACTURED BY SIEMENS.

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Wheaton, Il 60187

DESIGNED	MK	REVISED	-
DRAWN	DW	REVISED	-
CHECKED	MH	REVISED	-
DATE	12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES
U.S. RTE. 30 @ ORCHARD

SCALE: 1" = 20' | SHEET NO. 9 OF 13 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	118
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

28.0000 / / IN.
date/time
12/17/2010
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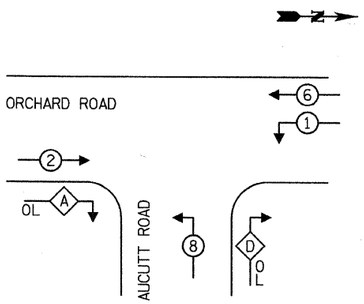
CONTROLLER SEQUENCE

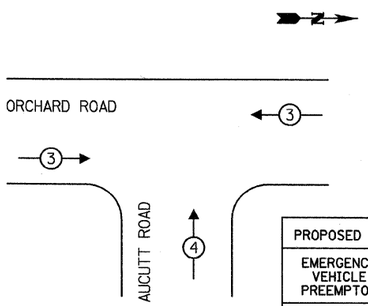


PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

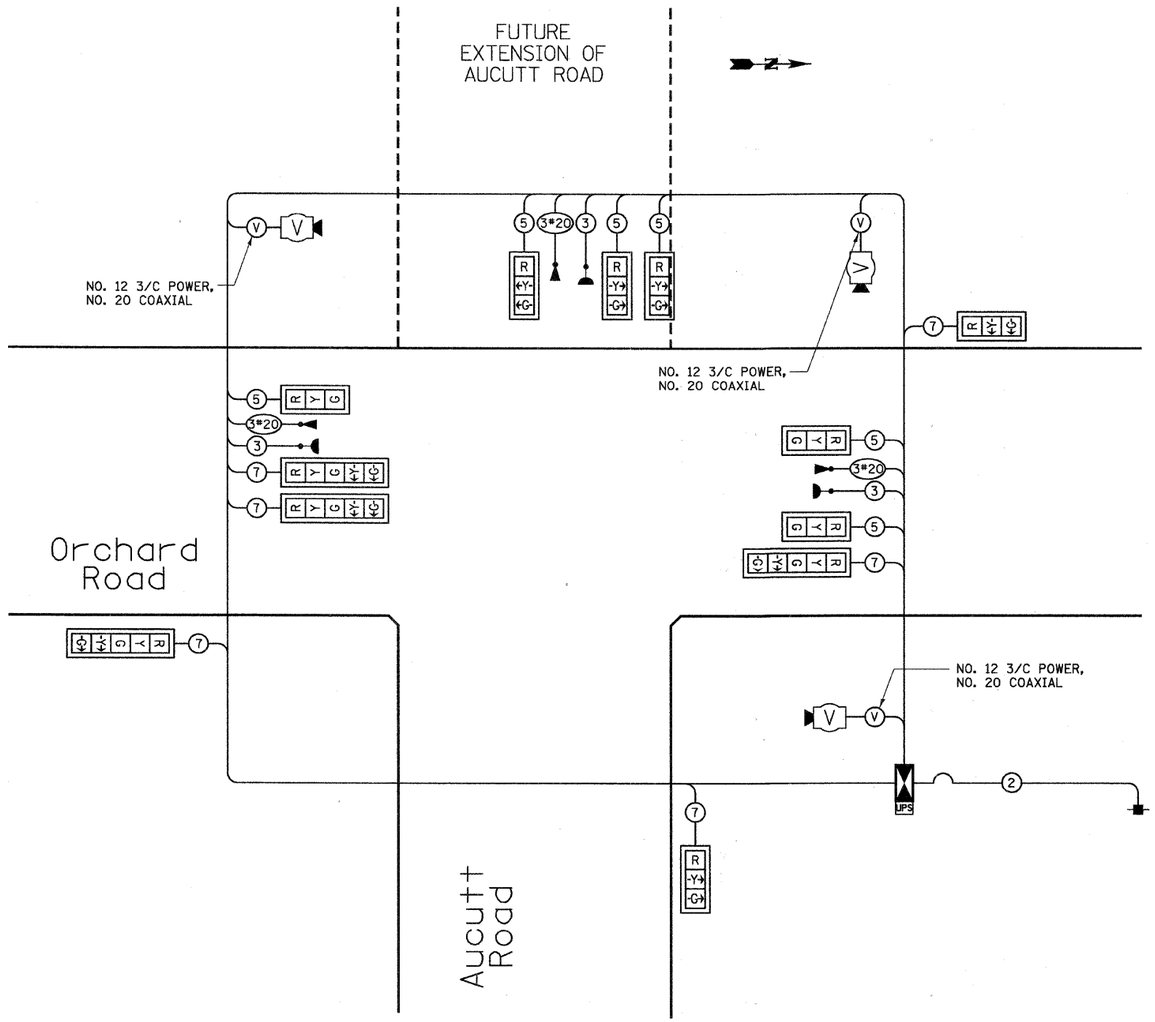
OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
A	=	2	+	8
D	=	8	+	1

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑

CABLE PLAN



NOTES:
1. TRAFFIC CONTROL EQUIPMENT SHALL BE MANUFACTURED BY SIEMENS.

TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	X WATTAGE	X % OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	12	17	0.50	102.0
(YELLOW)	8	25	0.25	50.0
(GREEN)	8	15	0.25	30.0
ARROW	16	12	0.10	19.2
PED. SIGNAL	0	25	1.00	0.0
CONTROLLER	1	100	1.00	100.0
ILLUM. SIGN				
VIDEO SYSTEM	1	150	1.00	150.0
FLASHER			0.50	
			TOTAL =	451.2

ENERGY COSTS - BILLED TO: (ADDRESS) Village of Montgomery, 1300 S. Broadway, Montgomery, IL 60538

ENERGY SUPPLY - CONTACT: Mr. Al Arends, PHONE: (630) 691-4379, COMPANY: Com Ed: Customer Const. & Design

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED	MK	REVISED	-
DRAWN	DW	REVISED	-
CHECKED	MH	REVISED	-
DATE	12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

TEMPORARY CABLE PLAN AND PHASE DESIGNATION DIAGRAM ORCHARD ROAD AND AUCUTT ROAD

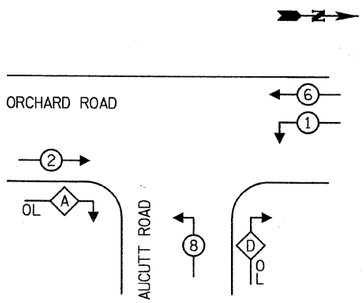
SCALE: 1" = 20' | SHEET NO. 10 OF 13 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	119
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

28.00000 ' / IN.
default
12/17/2010
K:\1177782\CAD\Sheets\177782_cable_pln_Aucutt_temp.dgn

CABLE PLAN

CONTROLLER SEQUENCE

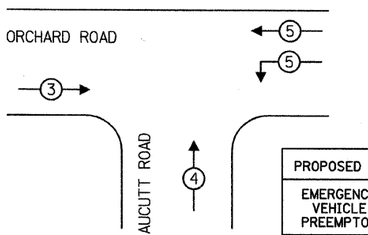


PHASE DESIGNATION DIAGRAM

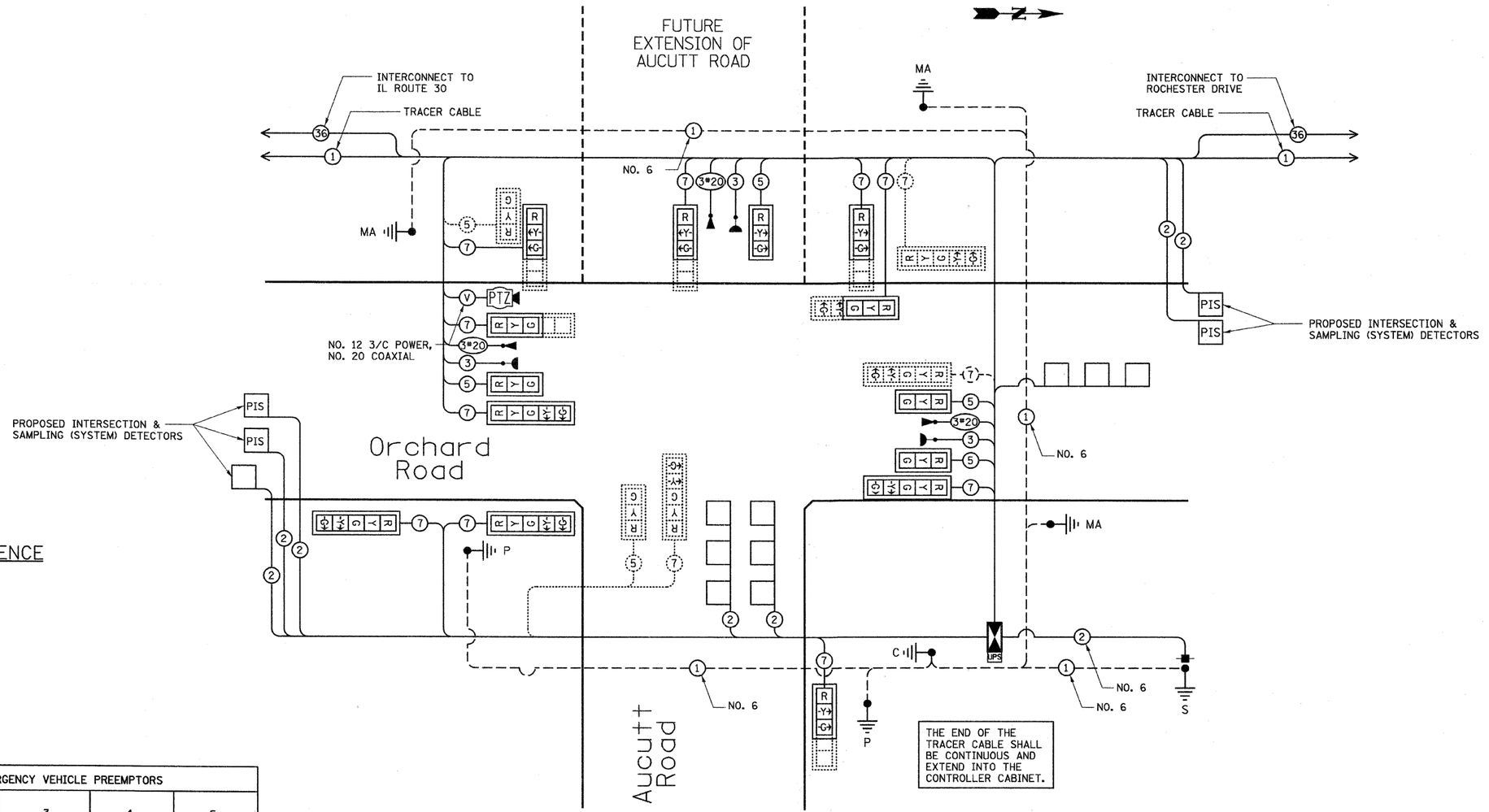
RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
A	=	2	+	8
D	=	8	+	1

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	→	↑	←



TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. LAMPS	WATTAGE	% OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	13	17	0.50	110.5
(YELLOW)	9	25	0.25	56.3
(GREEN)	9	15	0.25	33.8
ARROW	16	12	0.10	19.2
PED. SIGNAL	0	25	1.00	0.0
CONTROLLER	1	100	1.00	100.0
ILLUM. SIGN				
VIDEO SYSTEM	1	150	1.00	150.0
FLASHER			0.50	
			TOTAL =	496.8

ENERGY COSTS - BILLED TO: (ADDRESS) Village of Montgomery, 1300 S. Broadway, Montgomery, IL 60538

ENERGY SUPPLY - CONTACT: Mr. Al Arends
PHONE: (630) 691-4379
COMPANY: Com Ed: Customer Const. & Design

NOTES:

1. TRAFFIC CONTROL EQUIPMENT SHALL BE MANUFACTURED BY SIEMENS.
2. STREET LIGHTING INSTALLED AND ENERGIZED AS PART OF THE ROADWAY LIGHTING PLANS.

SCHEDULE OF QUANTITIES

791	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
56	FOOT	CONDUIT IN TRENCH, 2½" DIA., GALVANIZED STEEL
38	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
18	FOOT	CONDUIT IN TRENCH, 3½" DIA., GALVANIZED STEEL
168	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
103	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
409	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
5	EACH	HANDHOLE
2	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
480	FOOT	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10
1,105	FOOT	TRENCH BACKFILL FOR ELECTRICAL WORK
2	EACH	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, STANDARD
806	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1,247	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
2,255	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
2,940	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14, 1PR
195	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT
1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 52 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 38 FT. AND 60 FT.
1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 66 FT.
8	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
68	FOOT	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER
7	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
13	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
8	EACH	INDUCTIVE LOOP DETECTOR
3	EACH	LIGHT DETECTOR
3	EACH	LIGHT DETECTOR AMPLIFIER
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOVE TEMPORARY TRAFFIC SIGNAL INSTALLATION
385	FOOT	COAXIAL CABLE IN CONDUIT
1	EACH	VIDEO MONITORING PTZ CAMERA SYSTEM
676	FOOT	PREFORMED DETECTOR LOOP
385	FOOT	POWER LEAD CABLE VIDEO NO. 12, 3/C
1	EACH	SERVICE INSTALLATION - POLE MOUNTED
1,029	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
806	FOOT	ELECTRIC CABLE IN CONDUIT. NO. 20 3C, TWISTED SHIELDED

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED	MK	REVISED	-
DRAWN	DW	REVISED	-
CHECKED	MH	REVISED	-
DATE	12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

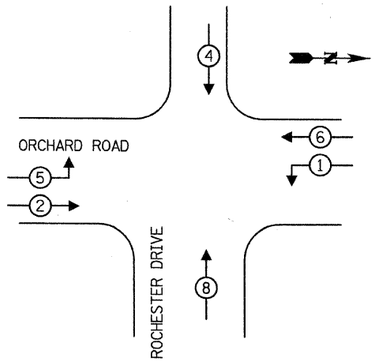
CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ORCHARD ROAD AND AUCUTT ROAD

SCALE: 1" = 20' | SHEET NO. 11 OF 13 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	120
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

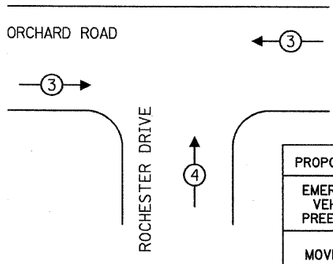
20.00000 ' / IN.
design view
12/17/2010
K:\11\177782\CAD\Sheets\177782_cable_pln_Aucutt.dgn

CONTROLLER SEQUENCE



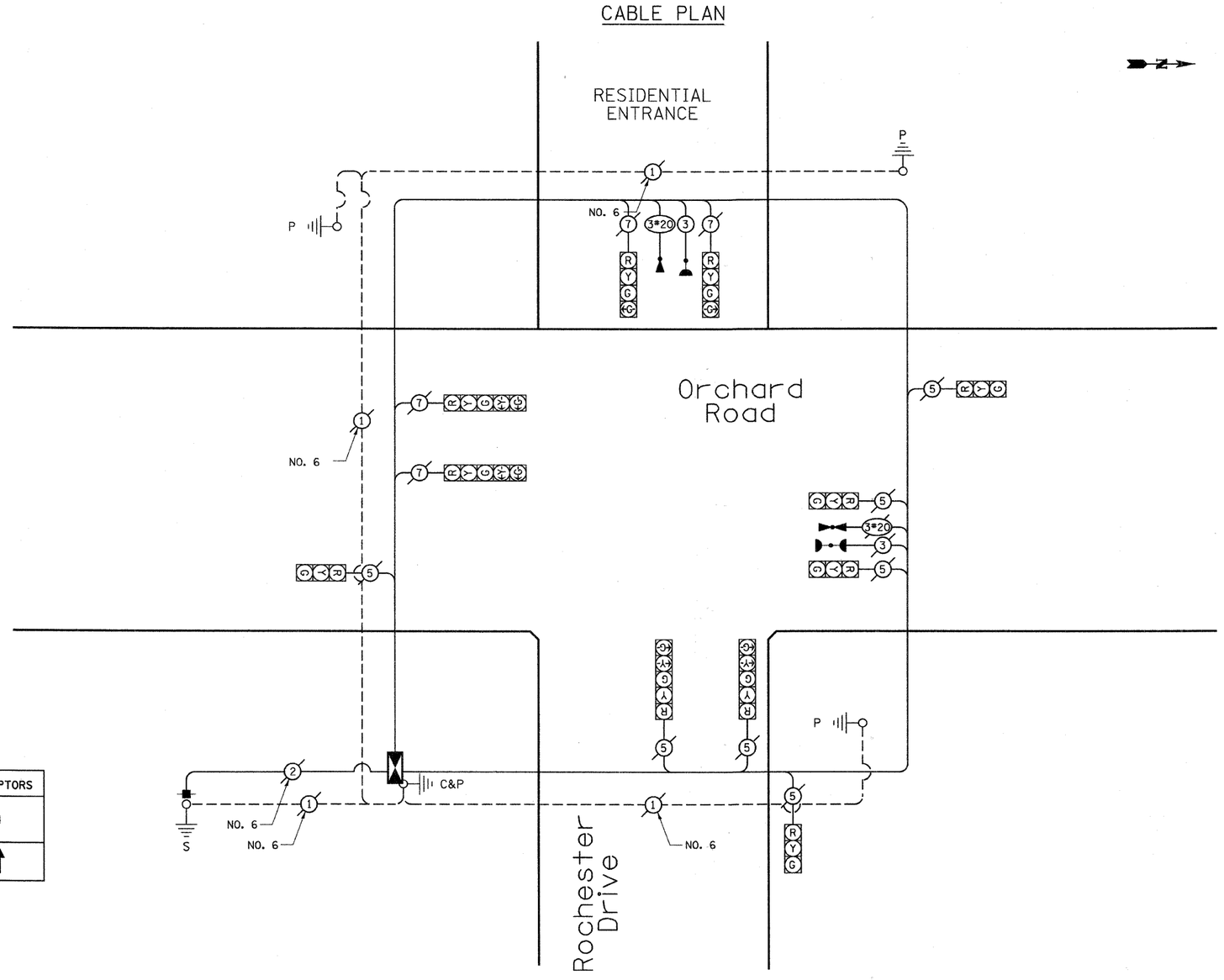
PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑

CABLE PLAN



NOTES:

1. TRAFFIC CONTROL EQUIPMENT SHALL BE MANUFACTURED BY SIEMENS.
2. ALL TRAFFIC SIGNAL HEADS SHALL BE L.E.D. (LIGHT EMITTING DIODE), AND MANUFACTURED BY DIALITE OR APPROVED EQUIVALENT.
3. VIDEO DETECTION SYSTEM SHALL BE MANUFACTURED BY ITERIS.

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS X	WATTAGE X	% OPERATIONS	
SIGNAL (RED)	11	10	0.50	55.0
(YELLOW)	11	18	0.25	49.5
(GREEN)	11	14	0.25	38.5
ARROW	8	9	0.10	7.2
PED. SIGNAL	0	7	1.00	0.0
CONTROLLER	1	100	1.00	100.0
ILLUM. SIGN				
FLASHER LED			0.50	
			TOTAL =	250.2

ENERGY COSTS - BILLED TO: Village of Montgomery
(ADDRESS) 1300 S. Broadway
Montgomery, IL 60538

ENERGY SUPPLY - CONTACT: Mr. Al Arends
PHONE: (630) 691-4379
COMPANY: Com Ed: Customer Const. & Design

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED	MK	REVISED	-
DRAWN	DW	REVISED	-
CHECKED	MH	REVISED	-
DATE	12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

TEMPORARY CABLE PLAN AND
PHASE DESIGNATION DIAGRAM
ORCHARD ROAD AND ROCHESTER DRIVE

SCALE: 1" = 20' | SHEET NO. 12 OF 13 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	121
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

20.0000 ' / IN.
date/time
12/17/2010
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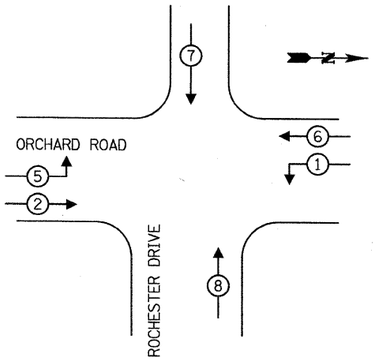
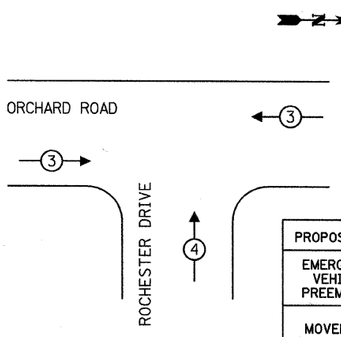
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



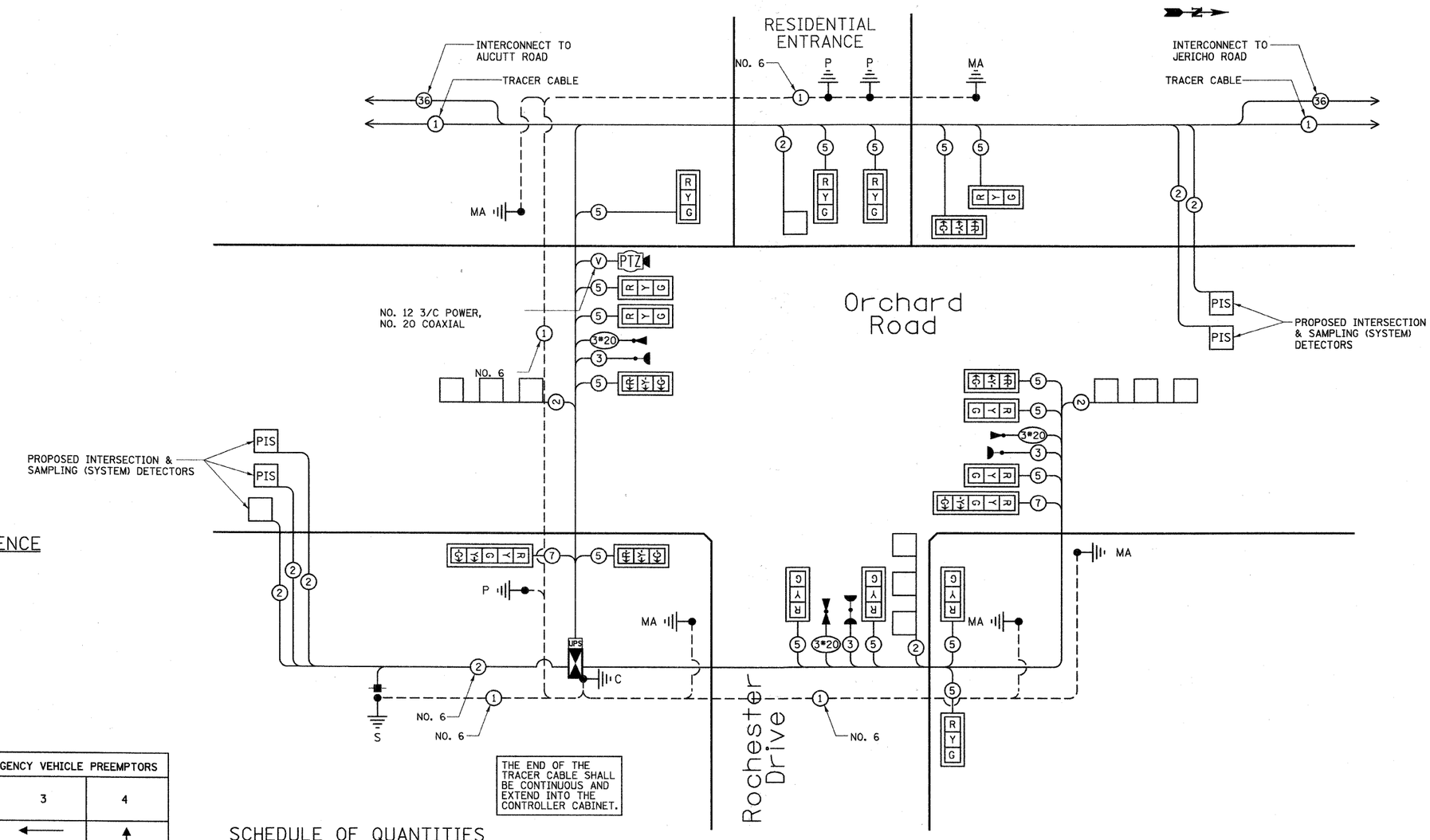
PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. LAMPS	WATTAGE	% OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	14	10	0.50	70.0
(YELLOW)	15	18	0.25	61.5
(GREEN)	15	14	0.25	52.5
ARROW	16	9	0.10	14.4
PED. SIGNAL	0	7	1.00	0.0
CONTROLLER	1	100	1.00	100.0
ILLUM. SIGN				
VIDEO SYSTEM	1	150	1.00	150.0
FLASHER LED			0.50	
			TOTAL =	448.4

ENERGY COSTS - BILLED TO: (ADDRESS) Village of Montgomery, 1300 S. Broadway, Montgomery, IL 60538

ENERGY SUPPLY - CONTACT: Mr. Al Arends, PHONE: (630) 691-4379, COMPANY: Com Ed: Customer Const. & Design

CABLE PLAN



SCHEDULE OF QUANTITIES

551	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
109	FOOT	CONDUIT IN TRENCH, 2½" DIA., GALVANIZED STEEL
42	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
160	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
118	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
221	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
5	EACH	HANDHOLE
2	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
650	FOOT	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10
844	FOOT	TRENCH BACKFILL FOR ELECTRICAL WORK
3	EACH	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT
2	EACH	RELOCATE EXISTING WOOD POLES
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, STANDARD
466	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
3,772	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
271	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
3,504	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14, 1PR
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT
1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.
1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 42 FT.
1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 62 FT.
1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 68 FT.
12	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
39	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
25	FOOT	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER
10	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
18	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
5	EACH	INDUCTIVE LOOP DETECTOR
3	EACH	LIGHT DETECTOR
3	EACH	LIGHT DETECTOR AMPLIFIER
1	EACH	REMOVE TEMPORARY TRAFFIC SIGNAL INSTALLATION
218	FOOT	COAXIAL CABLE IN CONDUIT
1	EACH	VIDEO MONITORING PTZ CAMERA SYSTEM
752	FOOT	PREFORMED DETECTOR LOOP
218	FOOT	POWER LEAD CABLE VIDEO NO. 12, 3/C
583	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
466	FOOT	ELECTRIC CABLE IN CONDUIT. NO. 20 3C, TWISTED SHIELDED

NOTES:

1. TRAFFIC CONTROL EQUIPMENT SHALL BE MANUFACTURED BY SIEMENS.
2. STREET LIGHTING INSTALLED AND ENERGIZED AS PART OF THE ROADWAY LIGHTING PLANS.

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED	MK	REVISED	-
DRAWN	DW	REVISED	-
CHECKED	MH	REVISED	-
DATE	12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

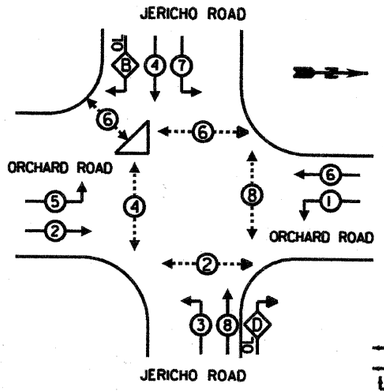
CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ORCHARD ROAD AND ROCHESTER DRIVE

SCALE: 1" = 20' | SHEET NO. 13 OF 13 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	122
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

20.0000 / IN.
drawn:
12/17/2010
K:\11777R2\CAD\Sheets\177702-cable_pln-Rohstr-dgn

CONTROLLER SEQUENCE



LEGEND

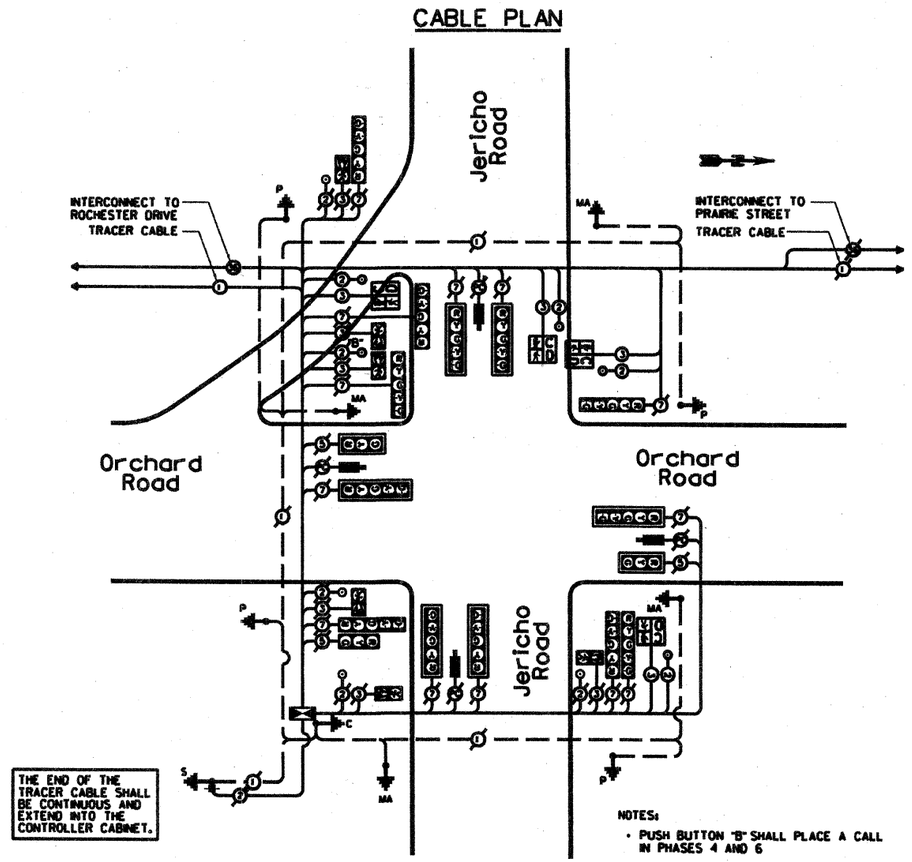
- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE.

PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
B	-	4	-	5

CABLE PLAN



NOTES:

- PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6

rjngroup
Excellence through Ownership
200 WEST FRONT STREET
WHEATON, IL 60187

DESIGNED - MK		REVISED -
DRAWN - DW		REVISED -
CHECKED - MH		REVISED -
DATE - 10/22/2010		REVISED -

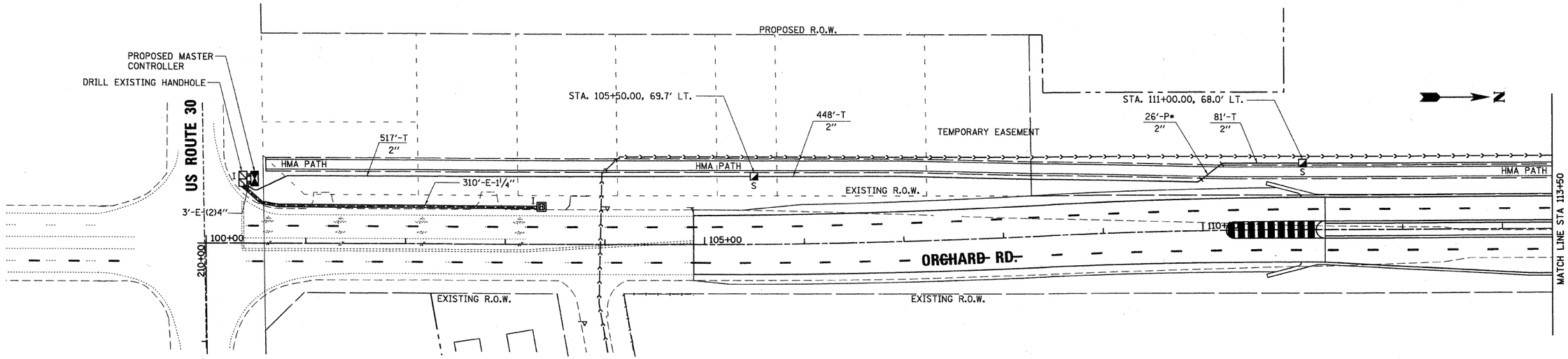
KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

CABLE PLAN AND
PHASE DESIGNATION DIAGRAM
ORCHARD ROAD AND JERICHO ROAD

SCALE: 1" = 20' | SHEET NO. 120F 125HEETS | STA. TO STA.

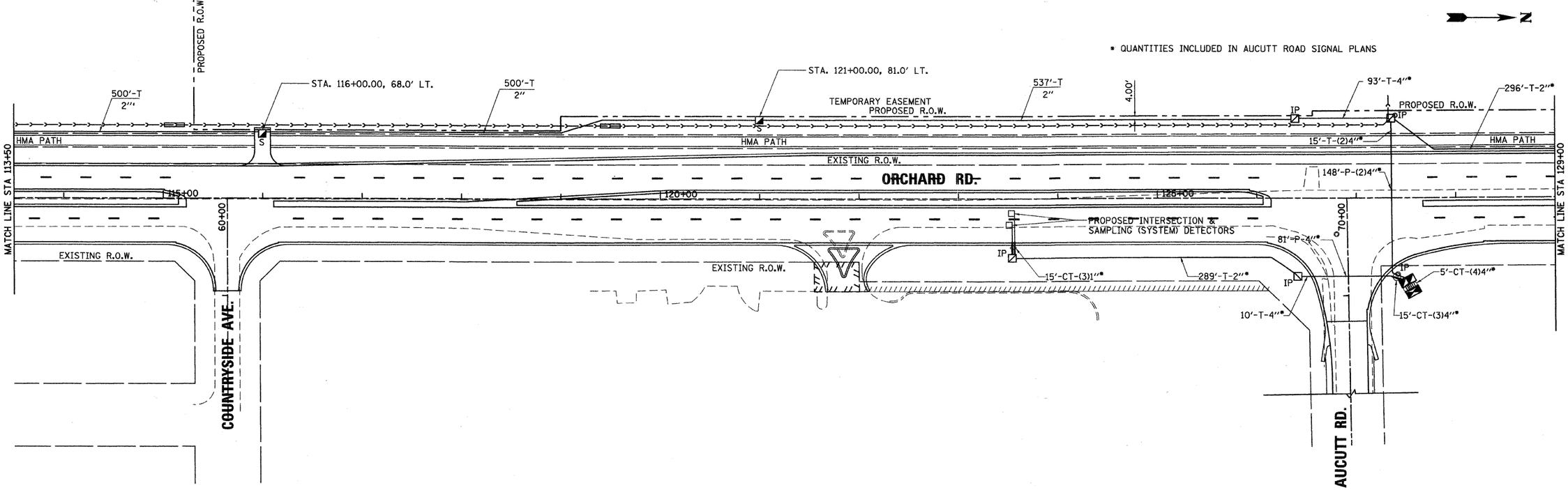
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-TR	KANE	215	123
		CONTRACT NO. 83738		
		ILLINOIS FED. AID PROJECT		

SCALES
USERS
DATES
FILES



NOTE:

THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO BE COMPATIBLE WITH KANE COUNTY'S EXISTING ADVANCE TRAFFIC MANAGEMENT SYSTEM (ATMS).



rjngroup Excellence through Ownership	200 West Front Street Wheaton, Il 60187	DESIGNED - MK DRAWN - DW CHECKED - MH DATE - 12/20/2010	REVISED - REVISED - REVISED - REVISED -

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD INTERCONNECT PLAN

SCALE: 1" = 50' | SHEET NO. 6 OF 13 SHEETS | STA. 100+00.00 TO STA. 129+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	124
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

49-9999 / / IN.
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12/17/2010
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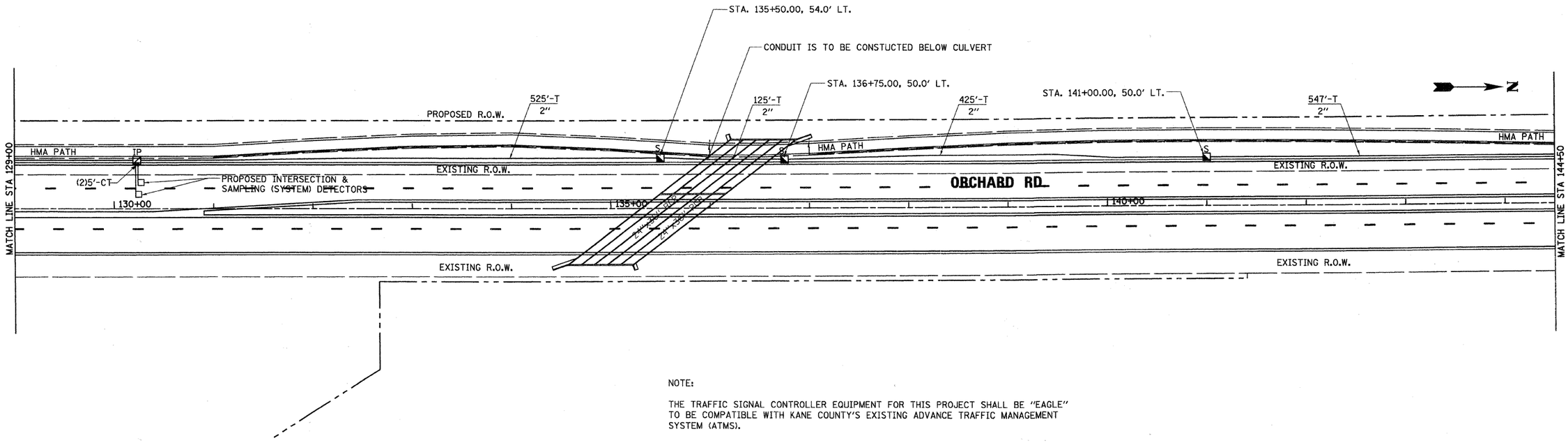


NOTE:

THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO BE COMPATIBLE WITH KANE COUNTY'S EXISTING ADVANCE TRAFFIC MANAGEMENT SYSTEM (ATMS).

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED	MK	REVISED	-
DRAWN	DW	REVISED	-
CHECKED	MH	REVISED	-
DATE	12/20/2010	REVISED	-

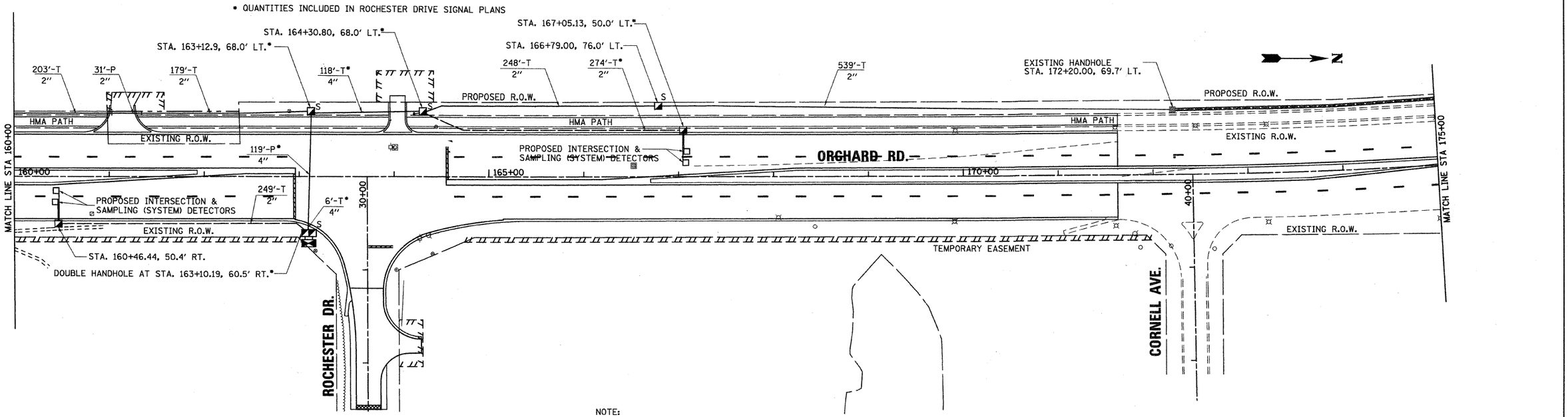
KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD INTERCONNECT PLAN

SCALE: 1" = 50' | SHEET NO. 7 OF 8 SHEETS | STA. 129+00.00 TO STA. 160+00.00

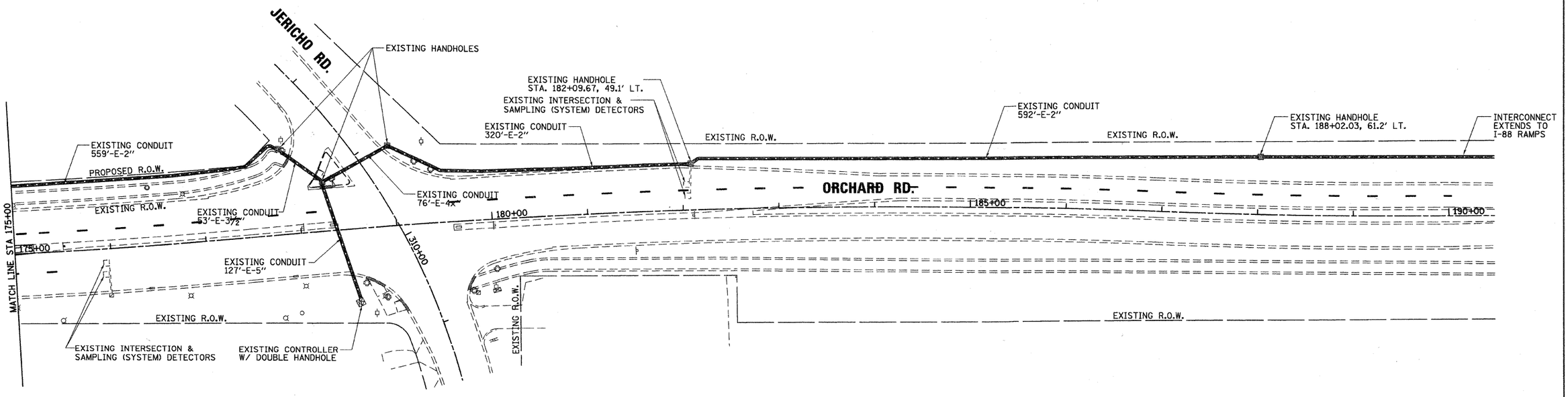
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	125
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

49.9999 ' / IN.
default
12/17/2010
K:\11177782\CAD\Sheets\177782_Interconnect_02.dgn



NOTE:

THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO BE COMPATIBLE WITH KANE COUNTY'S EXISTING ADVANCE TRAFFIC MANAGEMENT SYSTEM (ATMS).



49.9999 ' / IN.
dwales
12/17/2010
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rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

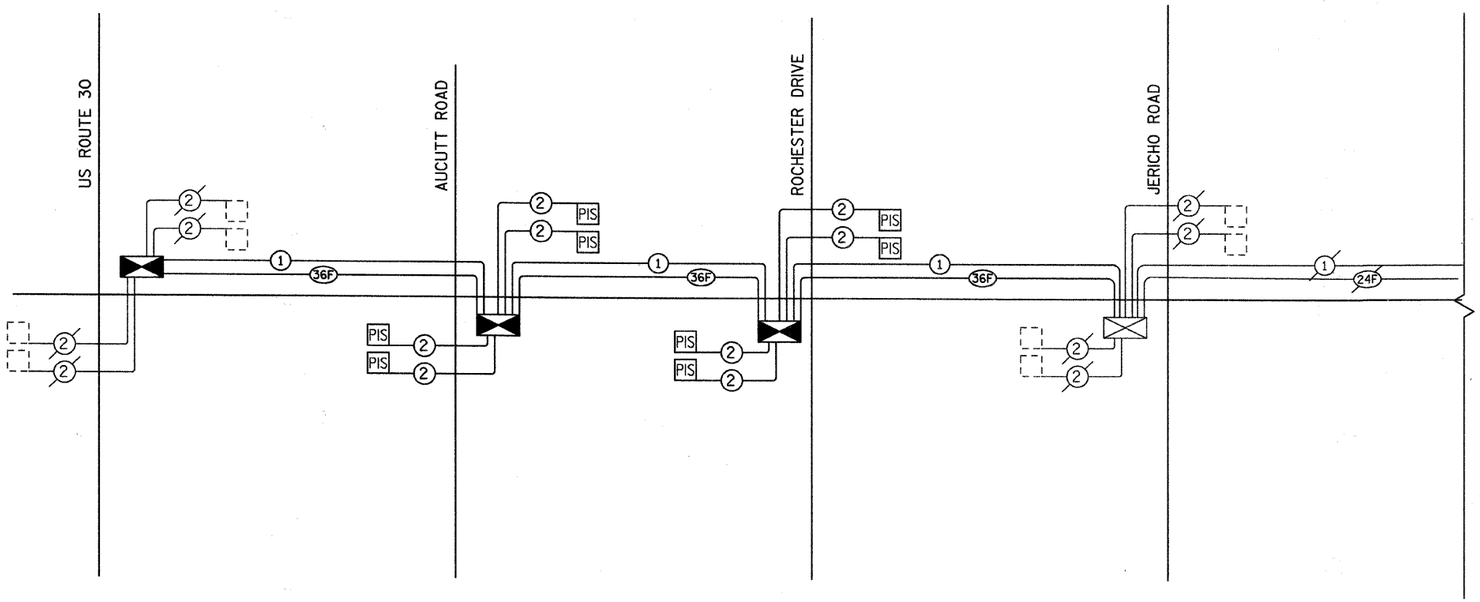
DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD INTERCONNECT PLAN

SCALE: 1" = 50' | SHEET NO. 8 OF 8 SHEETS | STA. 160+00.00 TO STA. 190+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	126
		CONTRACT NO. 63541		
	ILLINOIS	FED. AID PROJECT		



THE EXISTING INTERCONNECT SYSTEM SERVES THE FOLLOWING INTERSECTIONS NORTH OF ORCHARD ROAD.

- -PRAIRIE STREET
- -COACH/SURREY LANE
- -GALENA BOULEVARD
- -ILLINOIS AVENUE
- -INDIAN TRAIL ROAD
- -SULLIVAN ROAD
- -TOLLWAY ON-RAMP
- -TOLLWAY OFF-RAMP

SCHEDULE OF QUANTITIES

6,609	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
51	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
11	EACH	HANDHOLE
6,609	FOOT	TRENCH BACKFILL FOR ELECTRICAL WORK
4	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	DRILL EXISTING HANDHOLE
1	EACH	MODIFY EXISTING CONTROLLER (SPECIAL)
8,854	FOOT	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
1	EACH	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM
8,854	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F

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DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES

SCALE: NTS | SHEET NO. 4 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	127
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

49.9999 / IN.
dwales
12/17/2010
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	128
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 63541

SUMMARY OF QUANTITIES

ITEM	UNIT	QUANTITY	AUCUTT	ROCHESTER
LIGHT POLE, ALUMINUM, 40 FT MH, 10 FT MAST ARM	EACH	24	12	12
ELECTRIC SERVICE INSTALLATION	EACH	1	1	-
LIGHTING CONTROLLER, SPECIAL	EACH	1	1	-
LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	220	110	110
LUMINAIRE, SODIUM VAPOR HORIZONTAL MOUNT, 250 WATT	EACH	28	14	14
ELECTRIC UTILITY SERVICE CONNECTION	L. SUM	1	1	-
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	190	190	-
BREAKAWAY DEVICE TRANSFORMER BASE 15" BOLT CIRCLE	EACH	24	12	12
CONDUIT IN TRENCH, 2½" DIA GALVANIZED STEEL	FOOT	200	200	-
LIGHT POLE FOUNDATION, 24" DIAMETER OFFSET	FOOT	20	10	10
CONDUIT PUSHED 4" DIA. GALVANIZED STEEL	FOOT	194	150	44
ELECTRIC CABLE IN CONDUIT 600 V (XLP-TYPE USE-2) 1/C NO. 1/0	FOOT	220	220	-
UNIT DUCT 600 V, 2-1/C NO.4, 1/C NO.6 GROUND (XLP TYPE USE), 1" POLYETHYLENE	FOOT	4,450	2,250	2,200
LUMINAIRE SHIELD	EACH	3	-	3

LIGHT POLE AND ARM
UNION METAL CATALOG NUMBER
P09-Y194 -0.250" - 10'-0" x 6'-0" x 8" / 10 FT - 0.125" - 3'-0" OD

LUMINAIRE
GENERAL ELECTRIC MDCL-25-S-0-A-1-1-F-M-C-III-1-X
CATALOG NUMBER
• BALLAST TAPED FOR 240 VOLT CIRCUIT

CAUTION

"THE CONTRACTOR SHALL VERIFY THAT THERE ARE NO CONFLICTS BETWEEN THE PROPOSED LIGHT POLE FOUNDATION LOCATIONS AND EXISTING UTILITIES, PROPOSED UTILITIES, EXISTING DRIVEWAYS, AND PROPOSED DRIVEWAYS. IF A CONFLICT IS FOUND, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER. IN THE EVENT OF A CONFLICT, THE CONTRACTOR SHALL OBTAIN WRITTEN INSTRUCTIONS FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED. FAILING TO SECURE SUCH INSTRUCTIONS, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE."

CONTRACT NO. 63541

GENERAL NOTES

1. WHERE SEPARATE CIRCUIT RUNS ARE TO BE INSTALLED PARALLEL WITH EACH OTHER, ONE COMMON TRENCH SHALL BE USED AND SHALL BE MEASURED ONLY ONCE FOR PAYMENT, AS TRENCH AND BACKFILL FOR ELECTRICAL WORK.
2. IT SHALL BE THE CONTRACTOR,S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLES FOR EXAMINATION AND CONFIRMATION WITH THE ENGINEER AT THE PRECONSTRUCTION INSPECTION. THE EXACT LOCATIONS OF ALL OTHER ROADWAY LIGHTING ITEMS, INCLUDING THE LIGHTING CONTROLLER(S), SHALL BE CONFIRMED WITH THE ENGINEER PRIOR TO STARTING WORK.
3. THE RESPONSIBILITY FOR COORDINATING FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATION HEIGHTS SHALL BE REMAIN WITH THE CONTRACTOR.
4. THE CONTRACTOR SHALL SUBMIT FOR THE RESIDENT ENGINEER APPROVAL, WITHIN 30 DAYS AFTER CONTRACT EXECUTION, EIGHT (8) COPIES OF APPROVABLE MANUFACTURER'S PRODUCT DATA AND DETAIL SHOP DRAWINGS TO THE ATTENTION OF KANE COUNTY DIVISION OF TRANSPORTATION 41W011 BURLINGTON ROAD, ST. CHARLES, IL 60175, TEL. 630-584-1170 THE FOLLOWING:

   a. TRENCH: ELECTRICAL WARNING TAPE
   b. FOUNDATION: CLASS "SI" CONCRETE, REINFORCEMENT, RACEWAYS. ANCHOR BOLTS WITH NUTS & WASHERS.
   c. CONDUIT: CONDUIT AND CONDUIT FITTINGS.
   d. GROUND ROD: GROUND ROD, COPPER WIRE, EXOTHERMIC WELD.
   e. UNIT DUCT/CABLES: UNIT DUCT, CABLES
   f. ELECTRIC CABLES: ELECTRIC CABLES
   g. LIGHT POLE/ARM: POLE DETAILS, SHOP DRAWING, & WIND LOAD CALCULATIONS, POLE WIRE
   h. LUMINAIRE: ROADWAY LUMINAIRE WITH BALLAST ASSEMBLY.
   i. ELECTRICAL ITEMS: ELECTRIC TAPES, QUICK DISCONNECT WITH FUSE, LAMPS.
   j. LIGHTING CONTROLLER: CIRCUITRY DETAIL, CATALOG ON MATERIALS, PAINT.

5. UNIT DUCT SHALL BE 1" DIA. DUCT WITH 2 NO. 4 (BLACK-RED) 1/c NO.6 (GREEN) GROUND SOLID COLOR CODED INSULATED CONDUCTOR.
6. THE CONTRACTOR SHALL SUBMIT FOUR (4) SET FULL SIZED COMPLETE, NEAT AND ACCURATE "RECORD DRAWINGS" PLAN SETS TO THE ENGINEER FOR REVIEW AND COMMENT, AS SPECIFIED. THE "RECORD DRAWINGS" SHALL BE UPDATED ON REGULAR BASIS AND DEPICT ALL ROADWAY LIGHTING MATERIAL INSTALLATIONS WITH ANY CHANGES INDICATED IN RED. "RECORD DRAWINGS" SHALL BE SUBMITTED AT LEAST 7 DAYS BEFORE SCHEDULING A FINAL INSPECTION.
7. THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. AT (1-800-892-0123) TO LOCATE AND MARK/STAKE ALL UNDERGROUND UTILITIES.
8. THE CONTRACTOR SHALL GIVE IN WRITING TO THE ENGINEER FOR REVIEW, CONSTRUCTION STAGING FOR THE PROPOSED ROADWAY LIGHTING WORK, AND THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE ENGINEER.
9. THE LIGHT POLE SETBACK SHALL BE FROM THE BACK OF CURB TO THE FACE OF FOUNDATOIN.
   a. 2.5 FT WHERE MULTIUSE PATH IS LOCATED
   b. 7.5 FT ON OTHER POLE LOCATIONS
10. RESTORATION OF PARKWAY AND PROJECT SITE SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
11. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES.
12. THE PROPOSED TRENCH SHALL BE 30 INCH BELOW FINISHED GRADE
13. ALL ELECTRICAL EQUIPMENT AND PRODUCT SHALL BE U/L LISTED AND LABELED.

ELECTRICAL ENGINEER

LEE BARRETT 062-45933 REGISTERED PROFESSIONAL ENGINEER EXPIRATION 11/30/11 STATE OF ILLINOIS

PROJECT DRAWINGS #E-1 TO #E-11 ARE PREPARED BY SUNJOY INC.

LEGEND

- EXISTING LIGHTING UNIT, REMAIN IN PLACE
- LIGHT POLE, ALUMINUM 40 FT MOUNTING HEIGHT, 10 FT MAST ARM 15" DIA BOLT CIRCLE. LUMINAIRE HIGH PRESSURE SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT CLEAR LAMP, 240 VOLT BALLAST CWA (AUTO REG) POLE MOUNTED ON BREAKAWAY TRANSFORMER BASE
- COMBINATION POLE, 40 FT MOUNTING HEIGHT, 15 FT MAST ARM. LUMINAIRE HIGH PRESSURE SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT CLEAR LAMP, 240 VOLT BALLAST CWA (AUTO REG)

STA 19+42 — STATION NUMBER (TYP)
B-7 — POLE NUMBER (TYP)
LIGHTING CIRCUIT BREAKER DESIGNATION

- GROUND ROD, ¾" DIA. x 10 FT
- UNIT DUCT 600 V, 2-1/C NO.4, 1/C NO.6 GROUND (XLP TYPE USE), 1" POLYETHYLENE
- EXISTING UTILITY SERVICE POLE MOUNTED TRANSFORMER
- PROPOSED LIGHTING CONTROLLER
- ELECTRIC CABLE IN CONDUIT 600V (XLP - TYPE USE-2), 3- 1/C NO. 1/0
- T/P DIA x L — CONDUIT IN TRENCH (T) OR PUSHED (P) GALVANIZED STEEL
- --------- CONDUIT IN TRENCH (T) OR PUSHED (P) GALVANIZED STEEL

THE PREASSEMBLED ELECTRIC CABLE UNIT DUCT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30 INCHES IN APPROVED METHOD BY THE ENGINEER - BORED AND PULLED AS SPECIFIED IN ARTICLE 816.03. UNIT DUCT INSTALLATION COST FOR BORED PULLED METHOD SHALL BE INCLUDED IN PAY ITEM- "UNIT DUCT 600V, 2-1/C NO.4 , 1/C NO. 6 GROUND (XLP- TYPE USE), 1" DIA. POLYETHYLENE"

NOTE:

1. THE MATERIALS AND WORK FOR THIS PROJECT SHALL CONFORM TO THE LATEST APPLICABLE STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS. ISSUED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION. SPECIAL PROVISIONS CHECK LIST IS ATTACHED WITH THIS PROJECT.

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, IL 60187

REVISIONS NAME	DATE
Sunjoy Inc.	12-20-10

ILLINOIS DEPARTMENT OF TRANSPORTATION
KANE COUNTY DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION
AUCUTT RD & ROCHESTER DR LIGHTING IMPROVEMENT
SUMMARY OF QUANTITIES, GENERAL NOTES AND LEGEND

SCALE: VERT. NONE HORIZ. — DRAWN BY
DATE 08-01-10 — CHECKED BY

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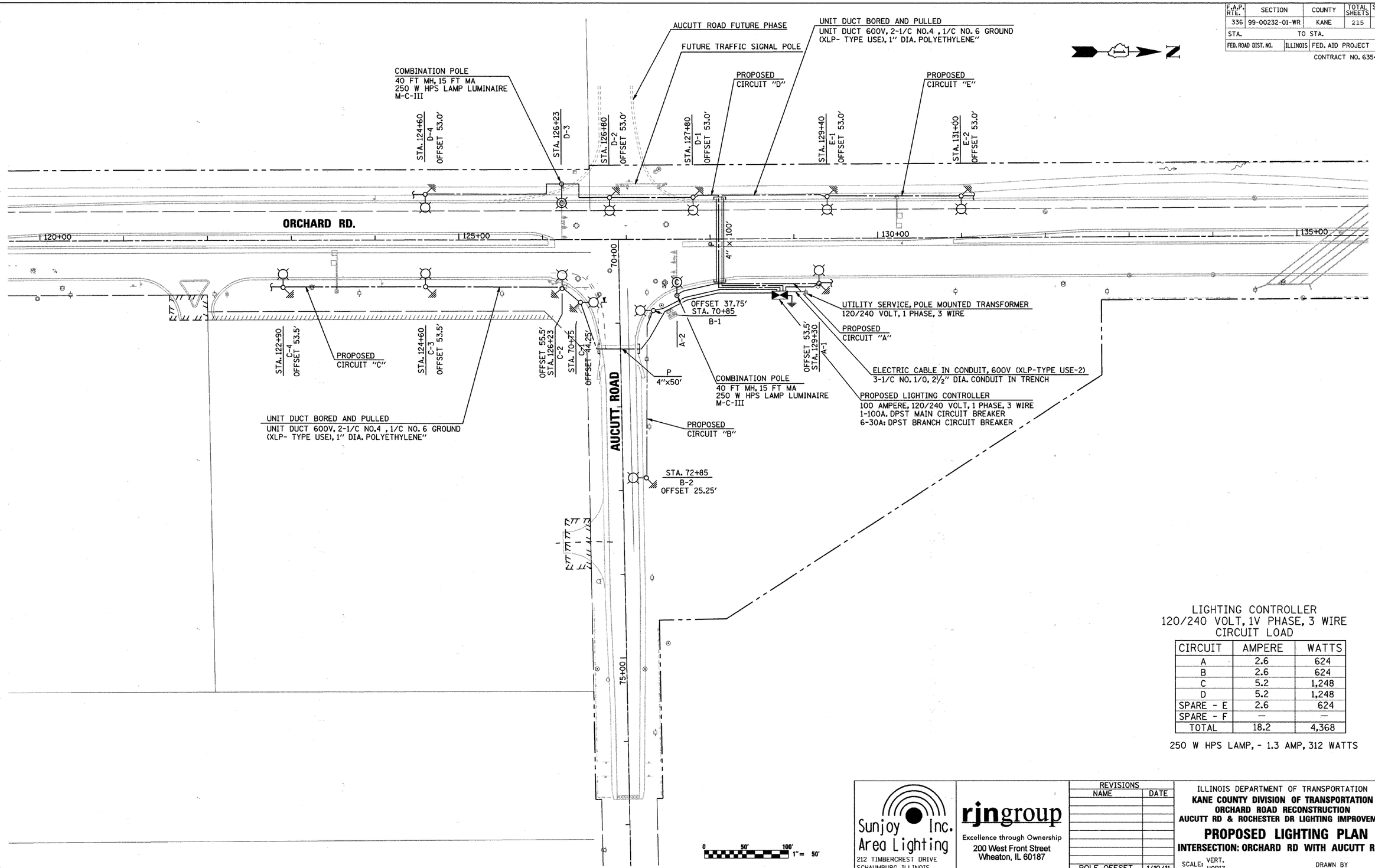
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	129
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 63541



LIGHTING CONTROLLER
120/240 VOLT, 1V PHASE, 3 WIRE
CIRCUIT LOAD

CIRCUIT	AMPERE	WATTS
A	2.6	624
B	2.6	624
C	5.2	1,248
D	5.2	1,248
SPARE - E	2.6	624
SPARE - F	—	—
TOTAL	18.2	4,368

250 W HPS LAMP, - 1.3 AMP, 312 WATTS

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, IL 60187

REVISIONS NAME	DATE
POLE OFFSET	1/10/11
Sunjoy Inc.	12/20/10

ILLINOIS DEPARTMENT OF TRANSPORTATION
KANE COUNTY DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION
AUCUTT RD & ROCHESTER DR LIGHTING IMPROVEMENT

PROPOSED LIGHTING PLAN

INTERSECTION: ORCHARD RD WITH AUCUTT ROAD

SCALE: VERT.
HORIZ.
DATE 08-01-10
DRAWN BY
CHECKED BY

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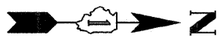
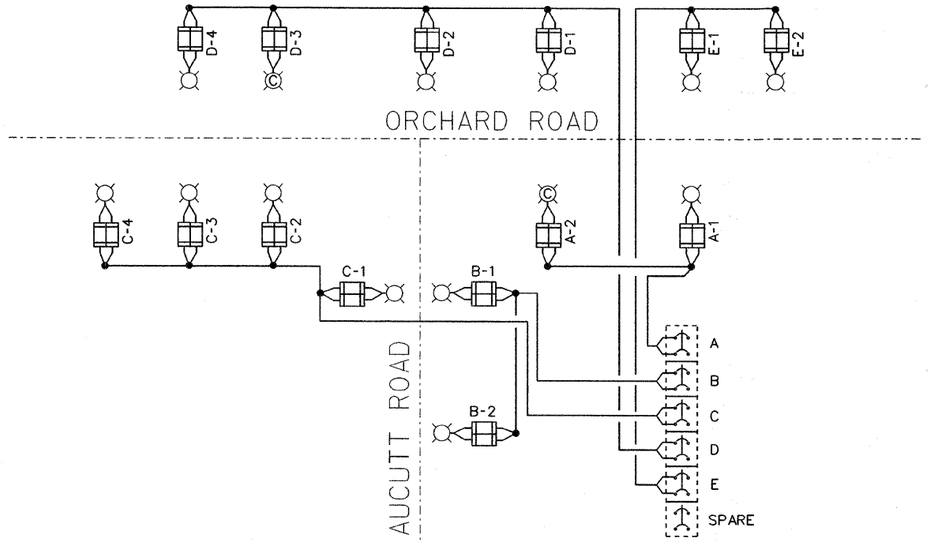
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	130
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

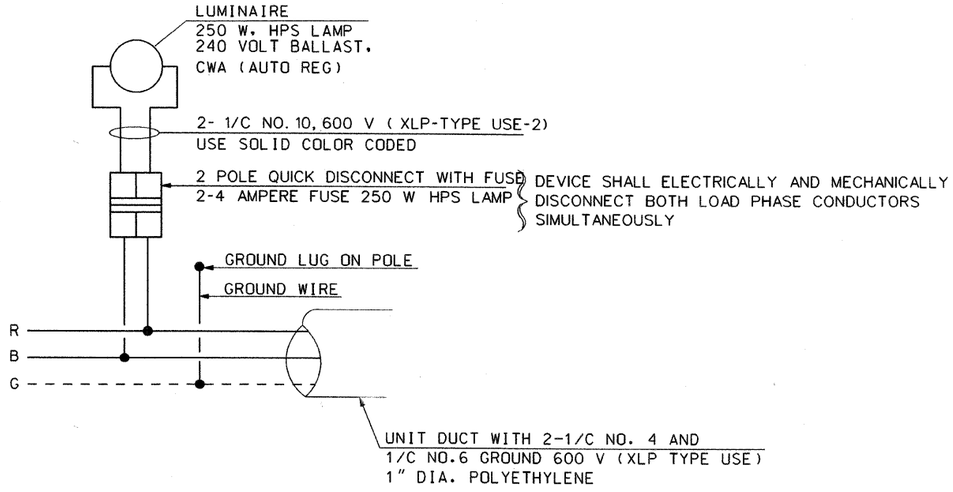
CONTRACT NO. 63541

SINGLE LINE LEGEND

- LUMINAIRE, 250W HPS
- COMBINATION POLE LUMINAIRE, 250W HPS
- FUSE, 2-4 FOR 250 W HPS LAMP
- CIRCUIT BREAKER
- 2 1/C #4 & 1/C #6 GND IN UNIT DUCT
- CONNECTION







LIGHTING CONTROLLER
120/240 VOLT, 1V PHASE, 3 WIRE
CIRCUIT LOAD

CIRCUIT	AMPERE	WATTS
A	2.6	624
B	2.6	624
C	5.2	1,248
D	5.2	1,248
SPARE - E	2.6	624
SPARE - F	—	—
TOTAL	18.2	4,368

250 W HPS LAMP, - 1.3 AMP, 312 WATTS

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, IL 60187

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
KANE COUNTY DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION
AUCUTT RD & ROCHESTER DR LIGHTING IMPROVEMENT
ONE LINE CICUIT DIAGRAM
INTERSECTION: ORCHARD RD WITH AUCUTT ROAD

SCALE: VERT. HORIZ. NONE — DRAWN BY
DATE 08-01-10 — CHECKED BY

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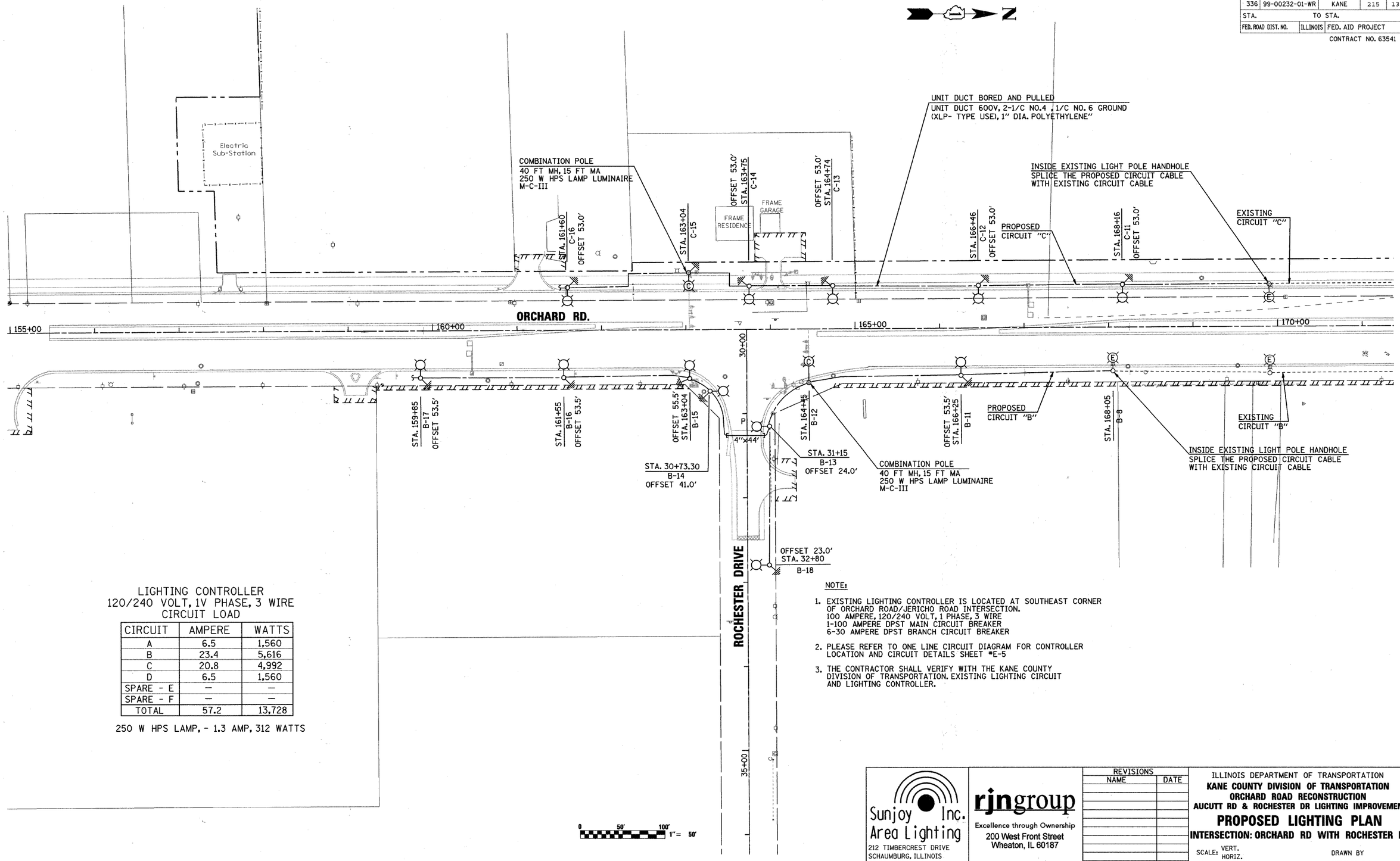
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	131
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 63541



LIGHTING CONTROLLER
120/240 VOLT, 1V PHASE, 3 WIRE
CIRCUIT LOAD

CIRCUIT	AMPERE	WATTS
A	6.5	1,560
B	23.4	5,616
C	20.8	4,992
D	6.5	1,560
SPARE - E	—	—
SPARE - F	—	—
TOTAL	57.2	13,728

250 W HPS LAMP, - 1.3 AMP, 312 WATTS

NOTE:

1. EXISTING LIGHTING CONTROLLER IS LOCATED AT SOUTHEAST CORNER OF ORCHARD ROAD/JERICHO ROAD INTERSECTION.
   100 AMPERE, 120/240 VOLT, 1 PHASE, 3 WIRE
   1-100 AMPERE DPST MAIN CIRCUIT BREAKER
   6-30 AMPERE DPST BRANCH CIRCUIT BREAKER
2. PLEASE REFER TO ONE LINE CIRCUIT DIAGRAM FOR CONTROLLER LOCATION AND CIRCUIT DETAILS SHEET *E-5
3. THE CONTRACTOR SHALL VERIFY WITH THE KANE COUNTY DIVISION OF TRANSPORTATION. EXISTING LIGHTING CIRCUIT AND LIGHTING CONTROLLER.

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Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

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Wheaton, IL 60187

REVISIONS NAME	DATE
Sunjoy Inc.	12/20/10

ILLINOIS DEPARTMENT OF TRANSPORTATION
KANE COUNTY DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION
AUCUTT RD & ROCHESTER DR LIGHTING IMPROVEMENT

PROPOSED LIGHTING PLAN

INTERSECTION: ORCHARD RD WITH ROCHESTER DR

SCALE: VERT.
HORIZ.
DATE 08-01-10
DRAWN BY
CHECKED BY

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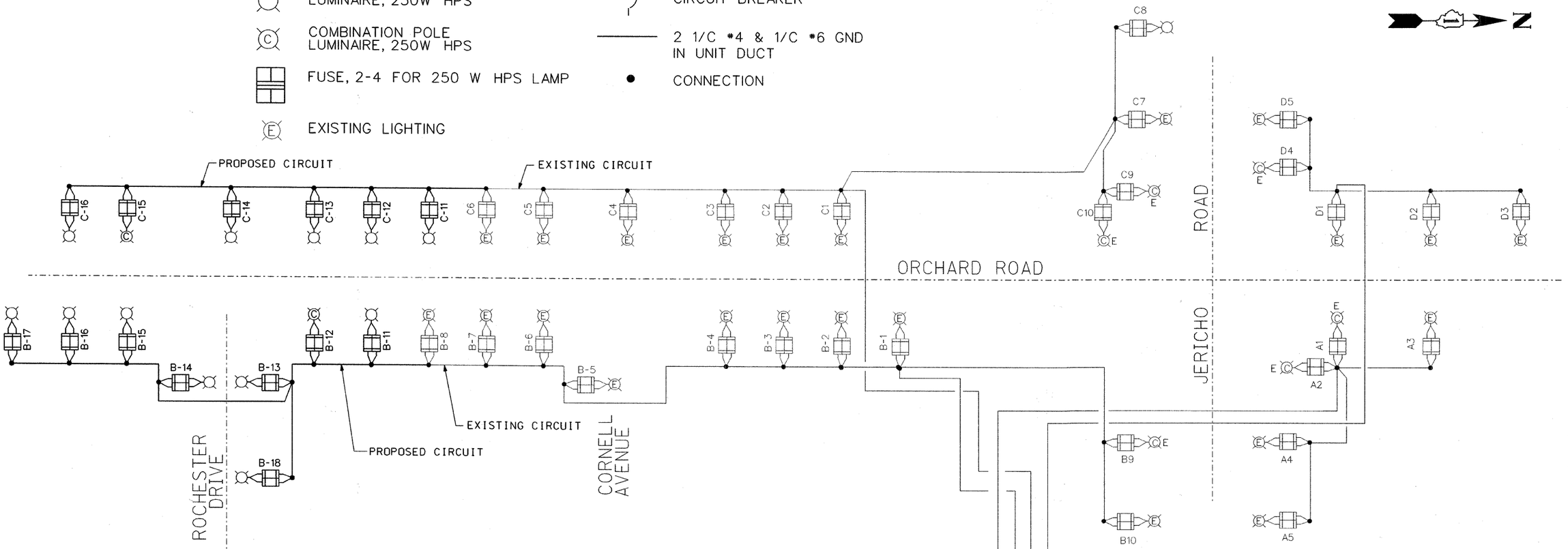
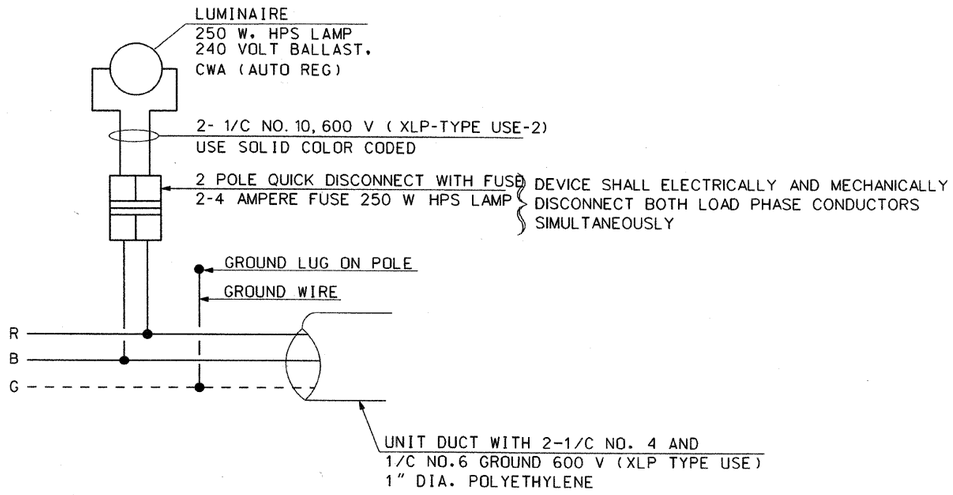
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	132
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 63541

SINGLE LINE LEGEND

- LUMINAIRE, 250W HPS
- COMBINATION POLE LUMINAIRE, 250W HPS
- FUSE, 2-4 FOR 250 W HPS LAMP
- (E) EXISTING LIGHTING
- CIRCUIT BREAKER
- 2 1/C #4 & 1/C #6 GND IN UNIT DUCT
- CONNECTION





LIGHTING CONTROLLER SOUTHEAST CORNER OF ORCHARD ROAD/JERICO INTERSECTION

LIGHTING CONTROLLER
120/240 VOLT, 1V PHASE, 3 WIRE
CIRCUIT LOAD

CIRCUIT	AMPERE	WATTS
A	6.5	1,560
B	23.4	5,616
C	20.8	4,992
D	6.5	1,560
SPARE - E	—	—
SPARE - F	—	—
TOTAL	57.2	13,728

250 W HPS LAMP, - 1.3 AMP, 312 WATTS

Sunjoy Inc. Area Lighting
212 TIMBERCREST DRIVE
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200 West Front Street
Wheaton, IL 60187

REVISIONS NAME	DATE
Sunjoy Inc.	12-20-10

ILLINOIS DEPARTMENT OF TRANSPORTATION
KANE COUNTY DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION
AUCUTT RD & ROCHESTER DR LIGHTING IMPROVEMENT

ONE LINE CICUIT DIAGRAM, REVISED

INTERSECTION: ORCHARD RD WITH ROCHESTER DR

SCALE: VERT. HORIZ. NONE
DATE 08-01-10
DRAWN BY
CHECKED BY

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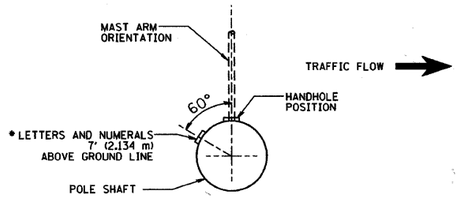
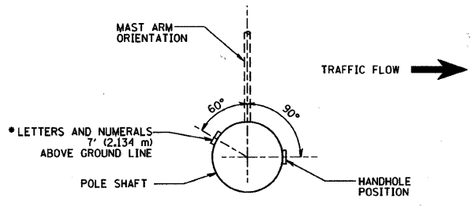
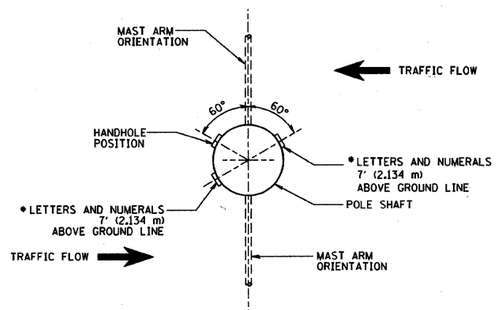


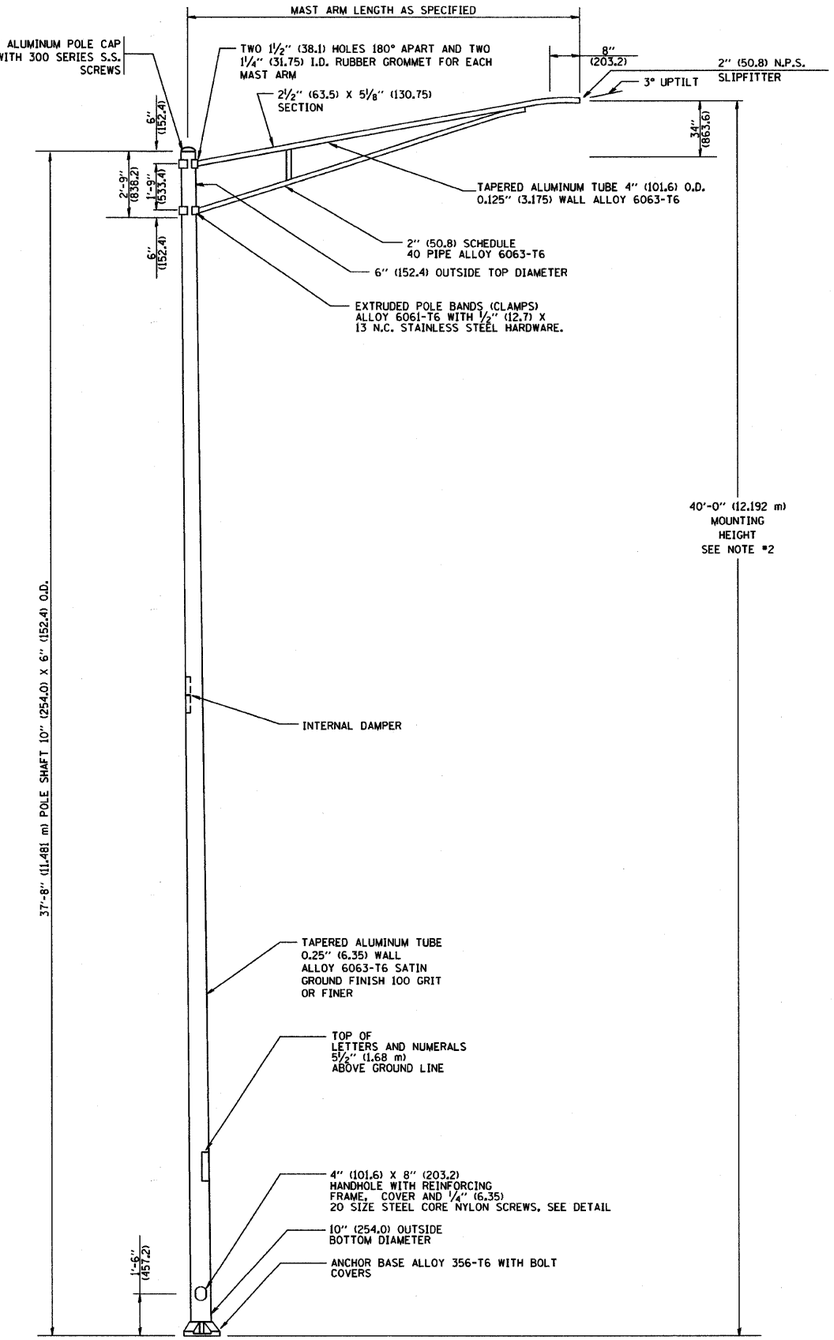
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL

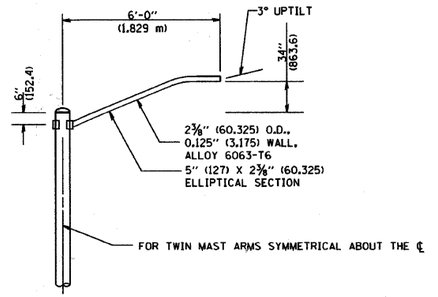


POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES

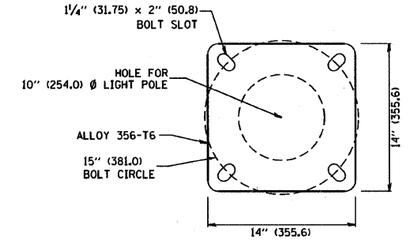




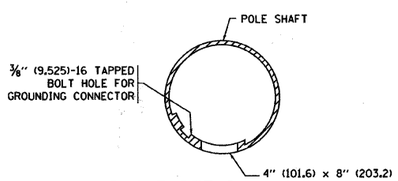
6' (1.8 m) SINGLE MEMBER MAST ARM
(N.T.S.)

NOTES:

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
3. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
4. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR. BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
5. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
6. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
7. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



LIGHT POLE BASE PLATE DETAIL
15 INCH (381.0) BOLT CIRCLE



HANDHOLE DETAIL
(N.T.S.)

FILE NAME = W:\diststd\22x34\be401.dgn	USER NAME = gegluenobt	DESIGNED -	REVISED - R. TOMSONS 09-06-00	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ALUMINUM LIGHT POLE 40'-0" (12.192 m) MOUNTING HEIGHT	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - R. TOMSONS 09-02-03			336	99-00232-01-WR	KANE	215	133
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -				BE-401	CONTRACT NO. 63541		
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

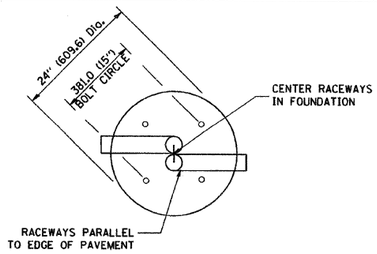
CONTRACT NO.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	134
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

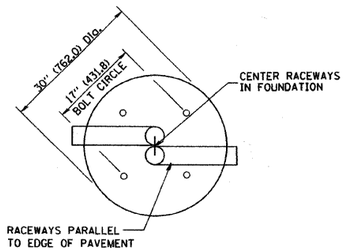
CONTRACT NO. 63541

LIGHT POLE FOUNDATION DEPTH TABLE
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

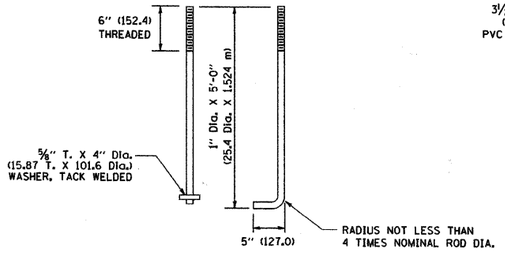
SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SQ.FT	9'-6" (2.09 m)	10'-9" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SQ. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND Ø = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND Ø = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND Ø = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)



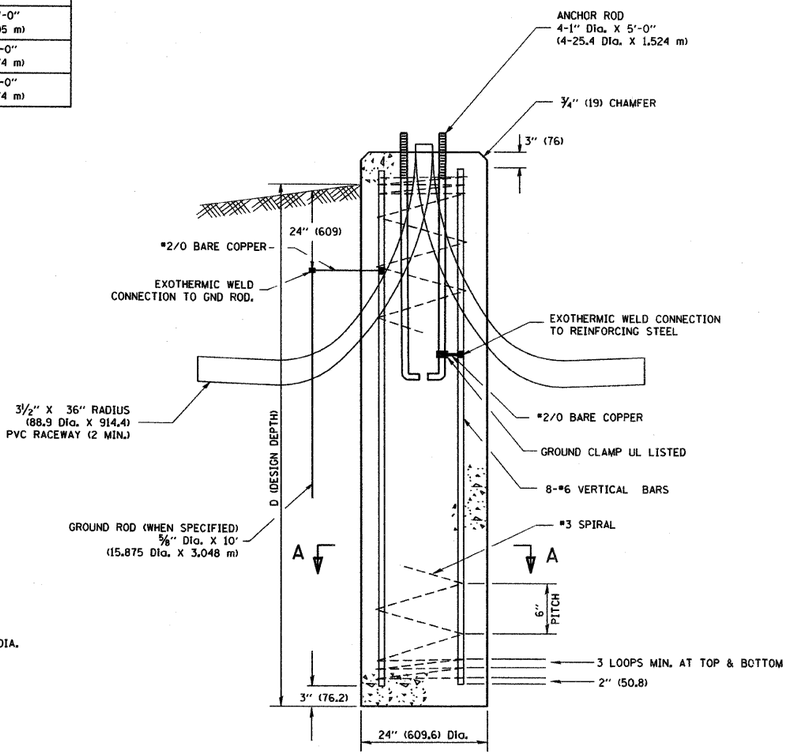
TOP VIEW



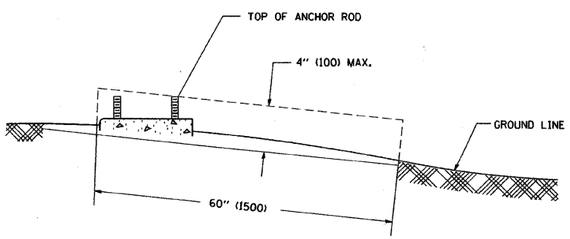
TOP VIEW



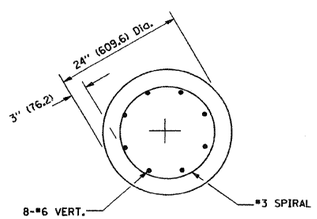
ANCHOR ROD DETAIL



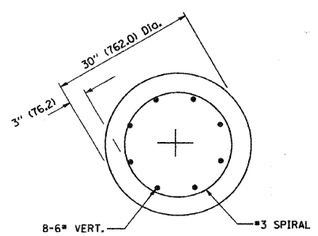
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

NOTES

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IN PLACED.
3. THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
4. THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
5. THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
6. THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
7. THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
8. THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
9. ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
10. THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
11. ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
12. THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
13. THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
14. THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

PLOT DATE = 4/18/2007
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USER NAME = bauerdl

E-301

REVISIONS NAME	DATE
	04/22/02

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHT POLE FOUNDATION
40' (12.192 m) TO 47 1/2' (14.478 m) M.H.
15" (381) BOLT CIRCLE

SCALE: NONE

DRAWN BY

CHECKED BY BE301

F. A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
336	99-00232-01-WR	KANE	215	135
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

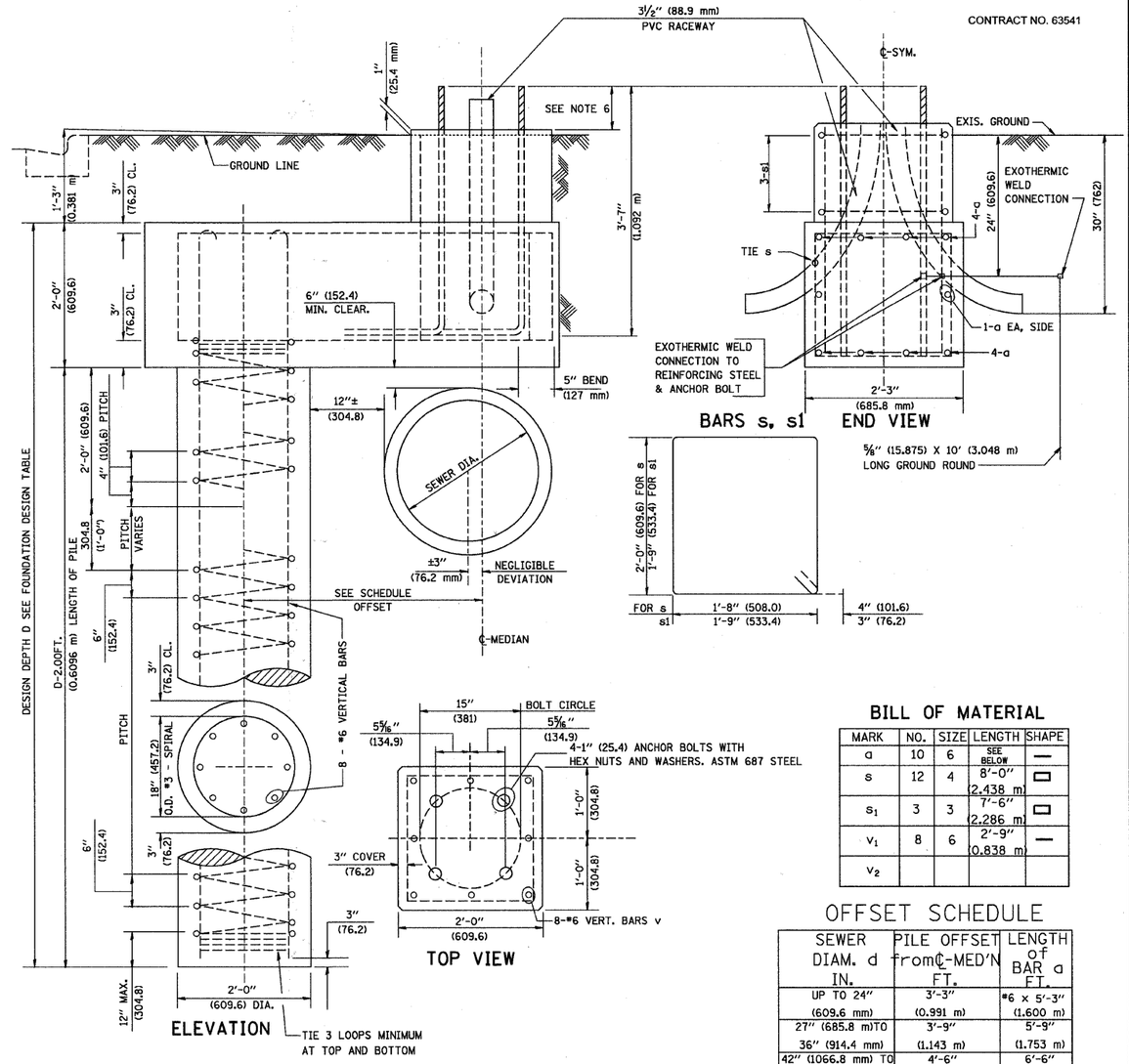
CONTRACT NO. 63541

FOUNDATION DESIGN TABLE

TYPE OF SOIL	DESIGN DEPTH OF FOUNDATION		REINFORCEMENT IN FOUNDATION			
	SINGLE ARM D	TWIN ARM D	SINGLE ARM		TWIN ARM	
			VERT BARS	SPIRAL	VERT BARS	SPIRAL
SOFT CLAY	13′-0″ (3.962 m)	15′-0″ (4.572 m)	8-#6X12′-6″ (3.810 m)	#3X122′ (37.186 m)	8-#6X14′-3″ (4.343 m)	#3X141′ (42.977 m)
MEDIUM CLAY	9′-6″ (2.896 m)	10′-9″ (3.277 m)	8-#6X9′-0″ (2.743 m)	#3X90′ (27.432 m)	8-#6X10′-0″ (3.048 m)	#3X100′ (30.480 m)
STIFF CLAY	7′-0″ (2.134 m)	8′-0″ (2.438 m)	8-#6X6′-6″ (1.981 m)	#3X66′ (20.112 m)	8-#6X7′-6″ (2.286 m)	#3X76′ (23.165 m)
LOOSE SAND	9′-0″ (2.743 m)	10′-0″ (3.048 m)	8-#6X8′-6″ (2.591 m)	#3X85′ (25.908 m)	8-#6X9′-6″ (2.896 m)	#3X94′ (28.651 m)
MEDIUM SAND	8′-3″ (2.515 m)	9′-0″ (2.743 m)	8-#6X8′-0″ (2.438 m)	#3X78′ (23.774 m)	8-#6X8′-6″ (2.591 m)	#3X85′ (25.908 m)
DENSE SAND	7′-9″ (2.362 m)	9′-0″ (2.743 m)	8-#6X7′-6″ (2.286 m)	#3X73′ (22.250 m)	8-#6X8′-6″ (2.591 m)	#3X85′ (25.908 m)
ROCK OR SOLIDIFIED SLAG	5′-0″ (1.524 m)	5′-0″ (1.524 m)	NONE	NONE	NONE	NONE

NOTES

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE.
3. EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24″ (609.6 mm) OR 30″ (762.0 mm) IN DIAMETER.
4. THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
5. THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
6. THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
7. ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
8. THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS. IF LIGHT POLE IS MOUNTED WITHOUT BREAKAWAY DEVICE, ANCHOR BOLTS SHALL PROJECT 2¾″ (69.9 mm) ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENTION WITH ENGINEER.
9. RACEWAYS SHALL PROJECT 1″ (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
10. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERECTED.



BILL OF MATERIAL

MARK	NO.	SIZE	LENGTH	SHAPE
a	10	6	SEE BELOW	—
s	12	4	8′-0″ (2.438 m)	▭
s_1	3	3	7′-6″ (2.286 m)	▭
v_1	8	6	2′-9″ (0.838 m)	—
v_2				

OFFSET SCHEDULE

SEWER DIAM. d IN.	PILE OFFSET from℄-MED'N FT.	LENGTH of BAR a FT.
UP TO 24″ (609.6 mm)	3′-3″ (0.991 m)	#6 x 5′-3″ (1.600 m)
27″ (685.8 m)TO 36″ (914.4 mm)	3′-9″ (1.143 m)	5′-9″ (1.753 m)
42″ (1066.8 mm) TO 48″ (1219.2 mm)	4′-6″ (1.372 m)	6′-6″ (1.981 m)
54″ (1371.6 mm) TO 60″ (1524.0 mm)	5′-0″ (1.524 m)	7′-0″ (2.134 m)
66″ (1676.4 mm) TO 72″ (1828.8 mm)	5′-6″ (1.676 m)	7′-6″ (2.286 m)

REVISIONS	
NAME	DATE
S. MANLEY	12-2-93
A. SANEDRIN	12-26-94

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHT POLE FOUNDATION
OFFSET
40′ (12.192 m) TO 47½′ (14.478 m) M.H.
15″ (381 mm) BOLT CIRCLE

SCALE: NONE

DRAWN BY JKM

CHECKED BY

BE-310

5/23/2008
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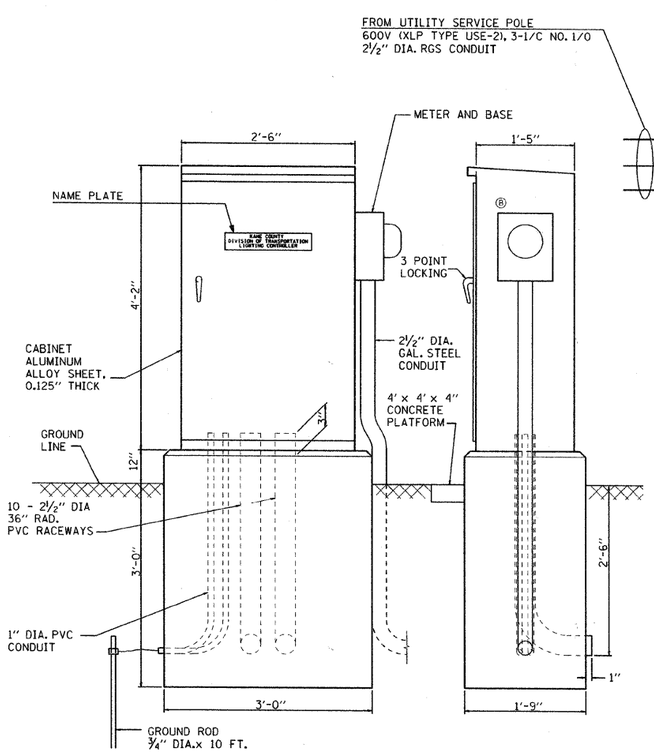
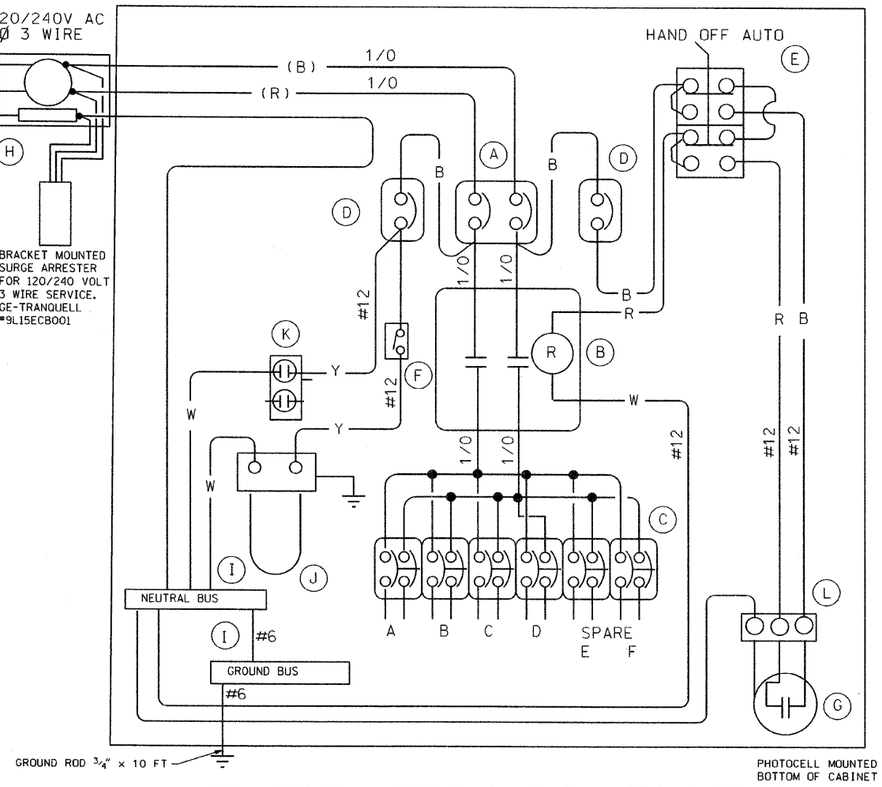
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	136
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 63541



CONTROL CABINET - CONSOLE TYPE



100 AMPERE - 120/240 VOLT, WIRING DIAGRAM

DEVICE SCHEDULE		
ITEM	QUANT.	DESCRIPTION
(A)	1	CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 2- POLE, 600 V. A.C., 225 A. FRAME, 125 A. NON-INTERCHANGABLE TRIP, BOLT-ON TYPE; INTERUPTING CAPACITY OF NOT LESS THAN 22,000 RMS SYMMETRICAL AMPERES AT 480 V.
(B)	1	CONTACTOR 100A., 2 POLE ELECTRICALLY HELD WITH 120V COIL
(C)	6	30 A., 1 POLE BOLT-ON BRANCH BREAKERS EACH RATED 277 V. WITH INTERUPTING CAPACITY OF NOT LESS THAN 10,000 RMS SYMMETRICAL AMPERES AT 240 V.
(D)	2	CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 1-POLE, 277 V., BOLT-ON TYPE, 15 A. WITH AN INTERUPTING RATING OF NOT LESS THAN 10,000 RMS SYMMETRICAL AMPERES AT 240 V.
(E)	1	SELECTOR SWITCH, 3 POSITION, ON-OFF-AUTO
(F)	1	20 A. SPST MICRO SWITCH (MOUNT WITH ACTUATOR TO SWITCH WHEN DOOR OPENED)
(G)	1	PHOTOCELL, 120 VOLT COIL
(H)	1	SOCKET FOR ELECTRIC UTILITY COMPANY METER.
(I)	2	NEUTRAL/GROUND COPPER BUSS
(J)	1	60 WATT LIGHT FIXTURE, VAPOR TIGHT, WITH GLOBE AND GUARD AND MOUNTING BOX
(K)	1	GFI RECEPTACLE, 120 V., 20 A., PREMIUM SPEC. GRADE, NEMA REFERENCE 5-15R IN WEATHER-PROOF BOX WITH FLAP-TYPE COVER.
(L)	1	TERMINAL BLOCK COPPER

NOTES:

1. THE CABINET SHALL BE FABRICATED FROM 0.125" THICK ALUMINUM ALLOY SHEET AND SHALL BE REINFORCED WITH ALUMINUM ANGLES. THE CABINET DOOR SHALL BE NEMA TYPE 3R CONSTRUCTION WITH NEOPRENE GASKET. THE DOOR SHALL HAVE STAINLESS STEEL HINGES AND THREE POINT LOCKING SYSTEM.
2. THE CONTRACTOR SHALL REMOVE VEGITATION AND TOPSOIL, LEVEL THE AREA IN FRONT OF THE CONTROL CABINET DOOR AND PLACE LENGTH WISE, PARALLEL TO CONTROL CABINET, A PRECAST PAD, 4'x 4'x 4" MINIMUM SIZE. THE COST OF LABOR AND MATERIALS SHALL BE INCIDENTAL TO THE CONTROL CABINET.
3. CONTROL WIRE SHALL BE #12 AWG, 600V, TYPE "MTW" STRANDED COPPER GRAY SWITCH BOARD WIRE. THE ENDS OF ALL CONTROL WIRES SHALL BE IDENTIFIED.
4. THE ELECTRIC METER BOX SHALL BE MOUNTED ON THE SIDE OF THE CONTROL CABINET, NEAR TO THE SERVICE POLE AND/OR AS DIRECTED BY THE ENGINEER.
5. ALL CONTROL CABINET ITEMS SHALL HAVE SUITABLE IDENTIFICATION. OPEN CIRCUIT BREAKERS, CONTACTORS AND OTHER OPEN DEVICES SHALL HAVE PERMANENT SELF STICKING TAGS. DEVICES IN ENCLOSURES SHALL HAVE ENGRAVED 2-COLOR LAMINATED PLASTIC NAMEPLATES ATTACHED TO ENCLOSURES WITH SCREWS. NAMEPLATES SHALL BE ENGRAVED TO CORRESPOND TO DESIGNATIONS ON THE DRAWINGS. INTERNAL CABINET WIRING SHALL BE IDENTIFIED AS INDICATED OR AS DIRECTED BY THE ENGINEER BY MEANS OF SELF-STICKING TAGS APPLIED AT EACH CONNECTED END. IDENTIFICATION SHALL BE MADE BY THE CABINET MANUFACTURER.
6. ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.
   R = RED BL = BLUE W = WHITE
   B = BLACK Y = YELLOW G = GREEN
7. PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
8. THE HEADS OF CONNECTOR SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BUSS CONNECTION AND GREEN FOR GROUND BUSS CONNECTORS.
9. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
10. THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".
11. PROVIDE A HOLDER AND WATERPROOF POUCH ON THE INNER SIDE OF THE CONTROLLER DOOR. THE HOLDER AND POUCH SHALL BE MOUNTED SO THAT RAIN WATER OR CONDENSED WATER CANNOT ENTER THE POUCH WITH THE CABINET DOOR OPEN. FURNISH A LAMINATED THE APPROVED COPY OF THE "CONTROL CABINET WIRING DIAGRAM".
12. THE CONTRACTOR SHALL OBTAIN ANCHOR BOLTS LOCATION TEMPLATE FROM THE FABRICATOR OF LIGHTING CONTROLLER
13. THE CONTROLLER FABRICATION SHALL COMPLY TO ARTICLE 1068.01 OF THE STANDARD SPECIFICATIONS
14. THE CONTROLLER CABINET DOOR SHOULD OPEN AWAY FROM THE STREET

CONTROLLER DETAIL FROM KANE COUNTY DIVISION OF HIGHWAYS

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, IL 60187

REVISIONS NAME	DATE
Sunjoy Inc.	12-20-10

ILLINOIS DEPARTMENT OF TRANSPORTATION
KANE COUNTY DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION
AUCUTT RD & ROCHESTER DR LIGHTING IMPROVEMENT
LIGHTING CONTROLLER SPECIAL

SCALE: VERT. HORIZ. DRAWN BY
DATE 08-01-10 CHECKED BY

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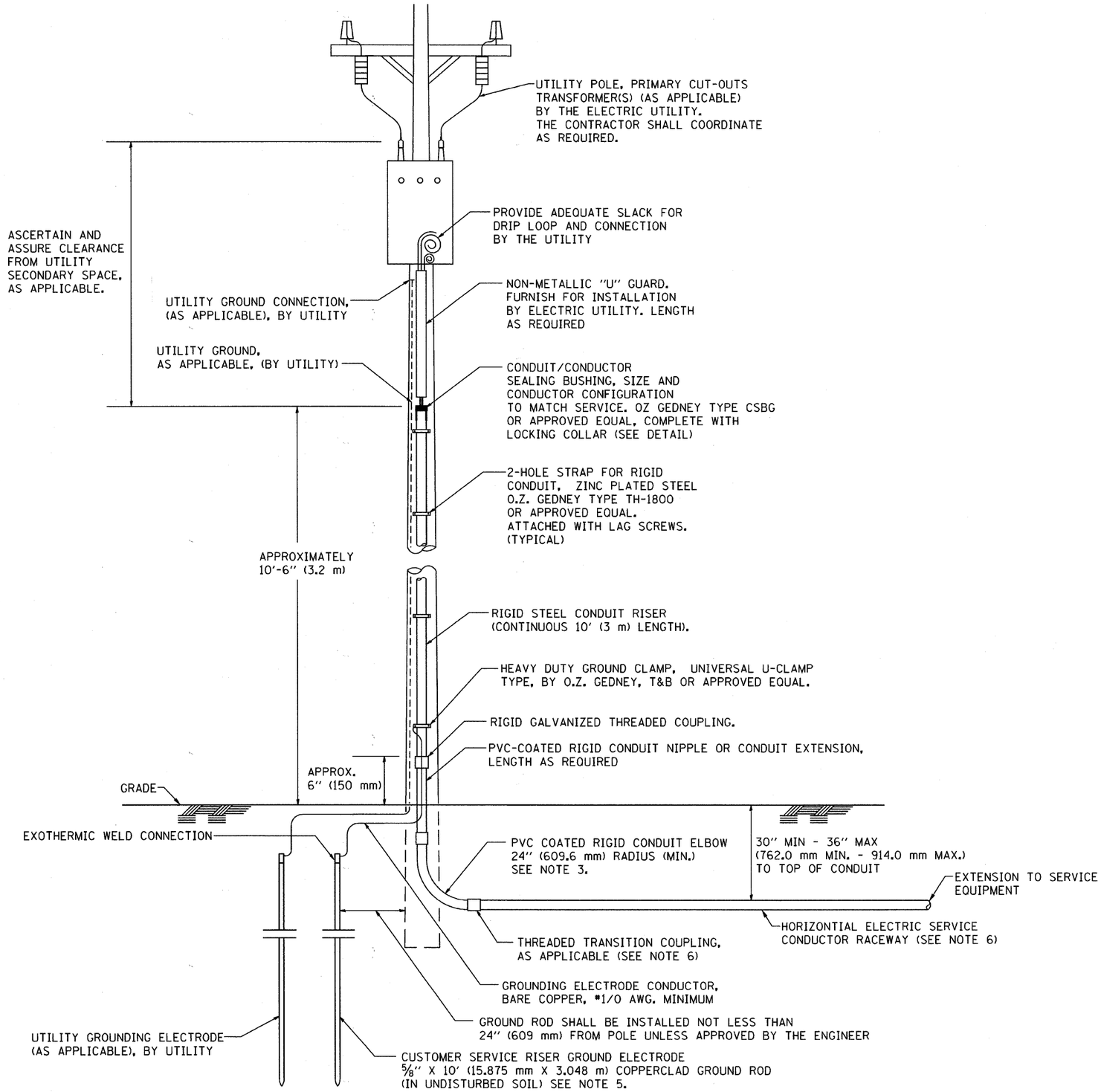
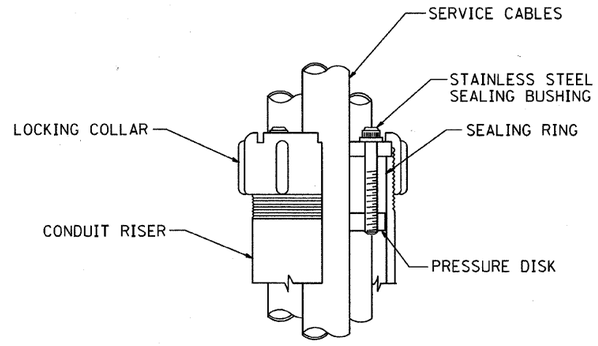


APPLICATION

THIS DETAIL APPLIES FOR LOW VOLTAGE ELECTRIC SERVICE (660 V OR LESS) FROM AN OVERHEAD UTILITY SUPPLY TO SEPERATLY-MOUNTED SERVICE EQUIPMENT.

NOTES

1. SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
2. UNLESS OTHERWISE INDICATED, ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.
3. CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED ON THE PLANS.
4. PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MFR RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
5. THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY "U" GUARD INSTALLATION AND SERVICE CONNECTION.
6. THE HORIZONTAL ELECTRIC SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL, THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT (IN CONCRETE), THE COUPLING SHALL BE A METALIC TO NON METALIC ADAPTER. WHEN THE RACEWAY IS ENCASED IN CONCRETE, THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
7. PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS. THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISIONS TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY, FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION IS REQUIRED AND SHALL BE INCLUDED IN THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.

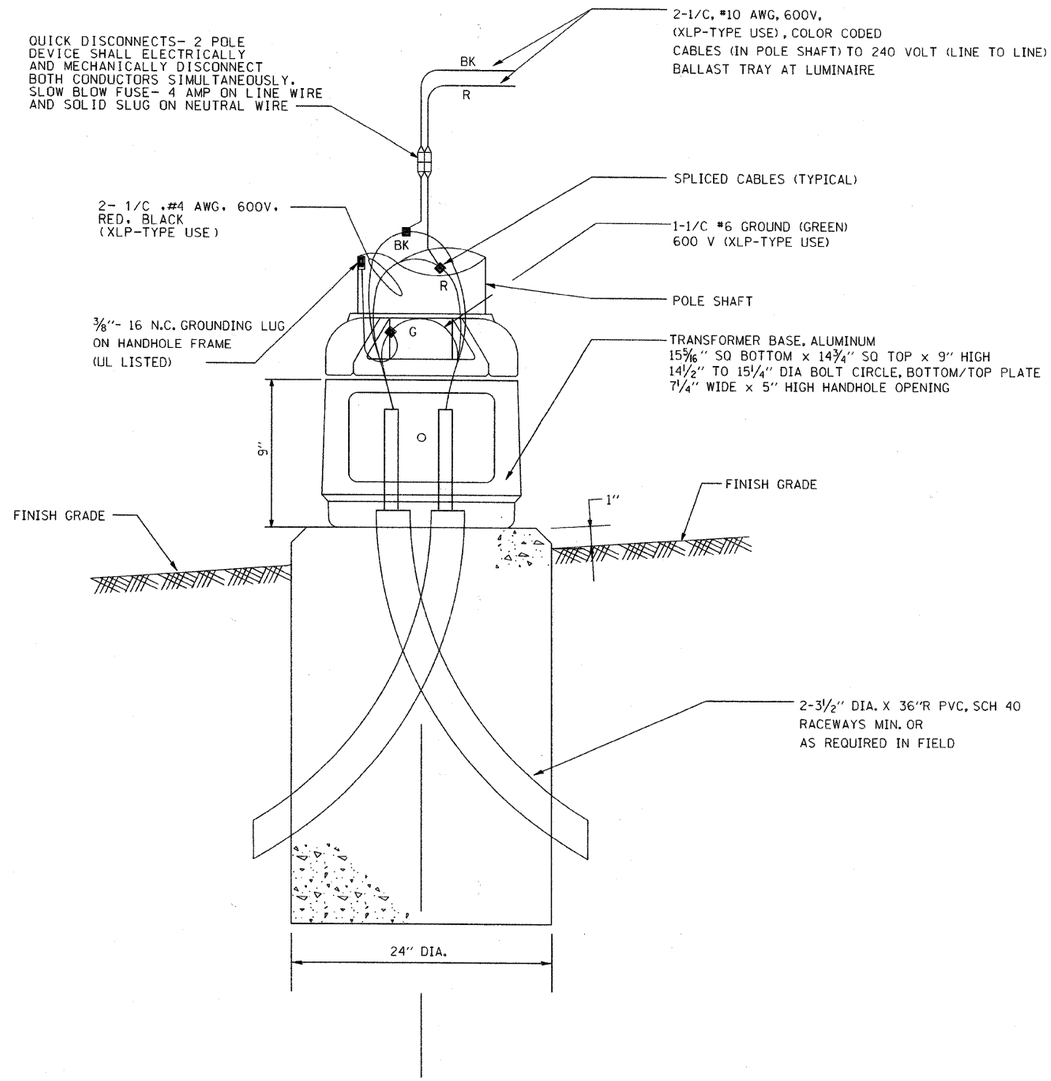


SEALING BUSHING DETAIL

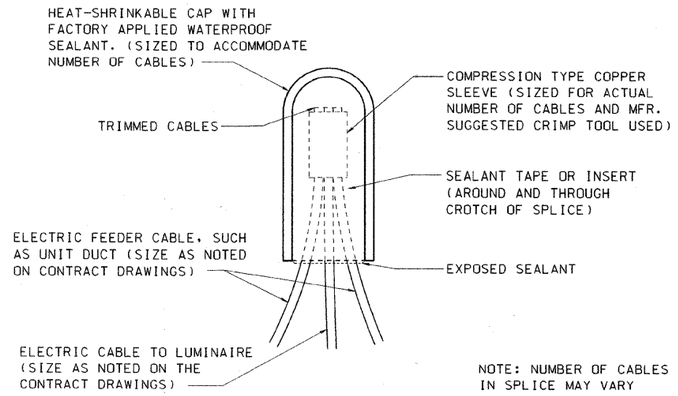
FILE NAME = W:\diststd\22x34\be220.dgn	USER NAME = gaglenobt	DESIGNED -	REVISED - 03-03-06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRIC SERVICE INSTALLATION AERIAL, REMOTE DISCONNECT	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			336	99-00232-01-WR	KANE	215	137
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - MEA	REVISED -				BE-220	CONTRACT NO. 63541		
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	138
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 63541

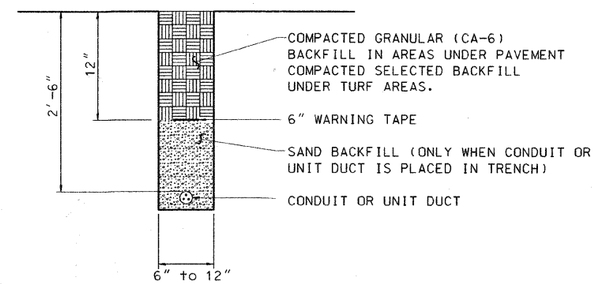


POLE BASE WIRING WITH
QUICK DISCONNECTS AND
BREAKAWAY DEVICE TRANSFORMER BASE, U/L LISTED



NOTE: NUMBER OF CABLES IN SPLICE MAY VARY

SPLICING ELECTRIC CABLE



TRENCH AND BACKFILL

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, IL 60187

REVISIONS NAME	DATE
Sunjoy Inc.	12-20-10

ILLINOIS DEPARTMENT OF TRANSPORTATION
KANE COUNTY DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION
AUCUTT RD & ROCHESTER DR LIGHTING IMPROVEMENT

ELECTRICAL DETAILS

SCALE: VERT. NONE HORIZ.
DATE 08-01-10
DRAWN BY
CHECKED BY

12/17/2010 10:08:28 AM C:\SUNJOY\Projects\Orchard_Acutt_Roh\ELECTRICAL_DETAILS.dgn

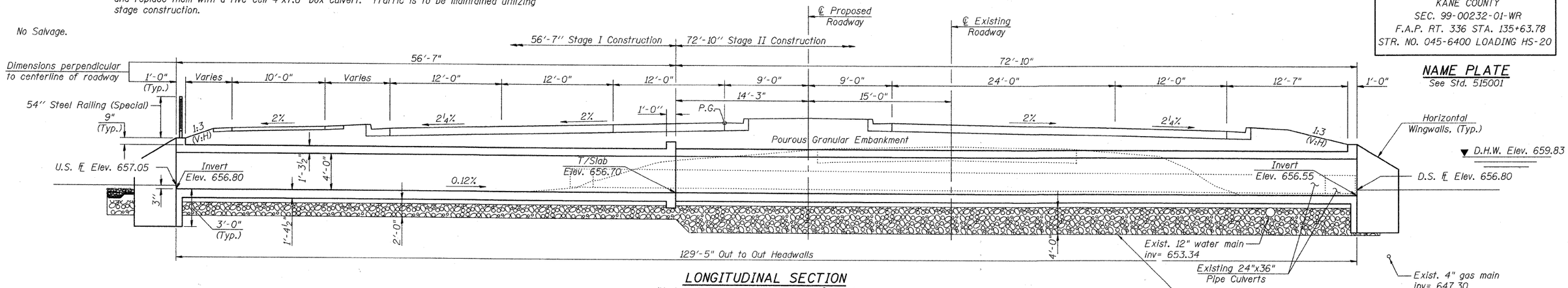
Bench Mark: Chiseled Square in west end of concrete pipe, 0.5 miles south of Jericho Road, Elevation 664.92.

Existing Structure: Two 36" x 24" elliptical reinforced concrete pipes, 118' long. The contractor shall remove and replace them with a five-cell 4'x7.6' box culvert. Traffic is to be maintained utilizing stage construction.

No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

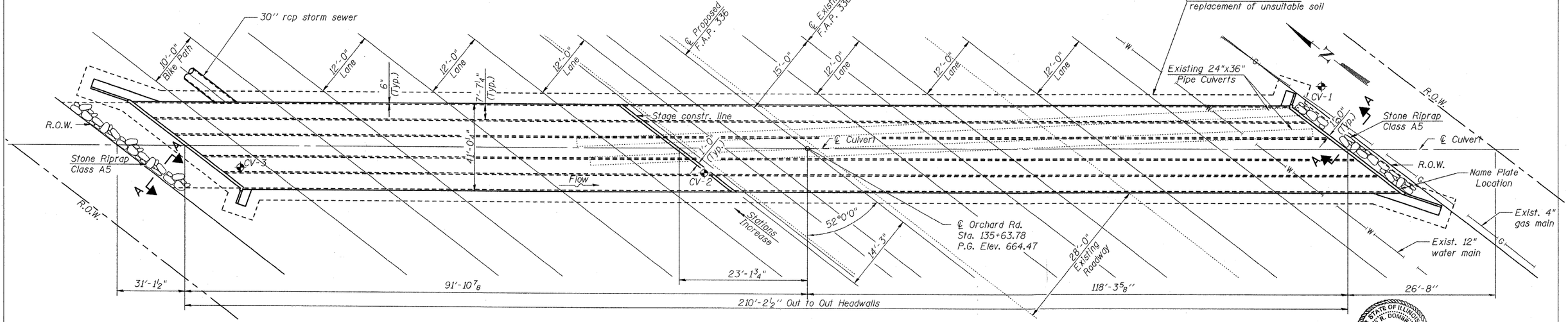
JERICHO LAKE DIVERSION
BUILT 20___ BY
KANE COUNTY
SEC. 99-00232-01-WR
F.A.P. RT. 336 STA. 135+63.78
STR. NO. 045-6400 LOADING HS-20



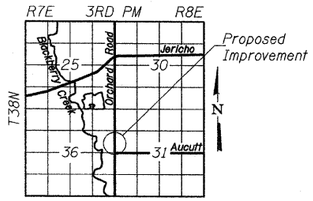
LONGITUDINAL SECTION

(Horizonal dimensions at Rt. L's to ℄ Roadway)

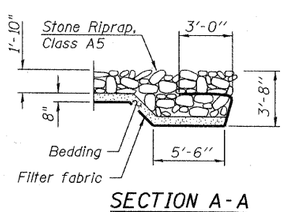
NAME PLATE
See Std. 515001



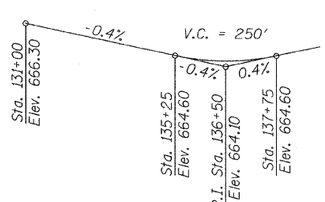
PLAN



LOCATION SKETCH



SECTION A-A



PROFILE GRADE

WATERWAY INFORMATION

Drainage Area: N/A — Low Grade Elev. 664.35 ft. @ Sta. 136+50

Flood	Freq. Yr.	Q c.f.s.	Opening ft.² Exist.	Opening ft.² Prop.	Nat. H.W.E.	Head - ft. Exist.	Head - ft. Prop.	Headwater Elev. Exist.	Headwater Elev. Prop.
Design	10	42	10.2	152	659.83	0.63	.02	660.46	659.85
Base	100	550	10.2	152	661.85	0.53	.54	662.38	662.39
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	3200	10.2	152	664.42	0.99	1.54	665.41	665.97

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	U.S. Invert	D.S. Invert
	653.80	653.55

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

AASHTO 17th Edition (2002)

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)

Notes:
Replacement of unsuitable material shall consist of 6" Porous Granular Embankment (CA7 or CA11), with the remainder Rock Fill - Foundation placed on top of Filter Fabric (geotechnical fabric for ground stabilization).

STATE OF ILLINOIS
PETER R. DOMBROWSKI
6519
LICENSED STRUCTURAL ENGINEER

Peter R. Dombrowski
December 17th 2010
Expires: 11/30/2012

I certify that to the best of knowledge, information and belief, this box culvert design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.

GENERAL PLAN
ORCHARD RD. OVER DRAINAGE DITCH
FAP 336, SECTION 99-00232-00-WR
KANE COUNTY
STATION 135+63.78
STRUCTURE NO. 045-6400

DESIGNED	PRD
CHECKED	AWW
DRAWN	PRD
CHECKED	AWW

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Wheaton, IL 60187

SHEET NO. 1
9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	Kane	215	139
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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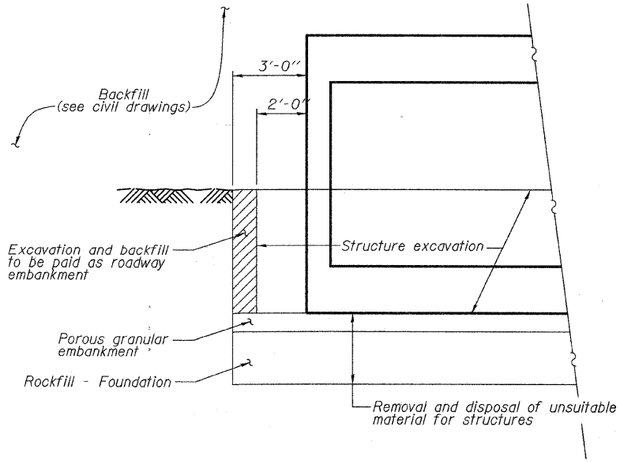
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
4. As shown on the stage construction details, it appears that no temporary soil retention system is required. If the Contractor's construction method is different from that shown on the drawings and temporary sheeting is required, it will be his/her responsibility to design and install an adequate soil retention system to the satisfaction of the Engineer.
5. Upon completion of removal and disposal of unsuitable material to the limits indicated on the plans, the adequacy of the subgrade shall be evaluated. If, in the opinion of the Engineer, the bearing capacity of the subgrade is insufficient, the excavation should extend to a level of adequate strength. Any additional work, such as excavation disposal and backfilling will be paid for at the applicable unit bid price.
6. The material used to replace the unsuitable material removed below the bottom of the proposed cast-in-place reinforced concrete box culver and wingwalls shall be paid for as "Rock Fill - Foundation".
7. The Contractor shall maintain or divert the stream flow during the entire construction period. No additional compensation will be made for water diversion or pumping. All costs incurred for these efforts shall be included in the contract unit bid price for "Concrete Box Culverts".
8. The Contractor shall make all necessary provisions to adequately support the existing 12" watermain below the culvert during the excavation of the unsuitable material. When placing the stones for the Rock Fill - Foundation, the Contractor shall properly compact the aggregates below the watermain to avoid future settlement and possible damage of the pipe. Furthermore, the area in direct contact with the pipe shall utilize small-size aggregates to avoid concentrated point loads applied to the watermain.
9. Precast concrete alternate will not be allowed.

TOTAL BILL OF MATERIAL

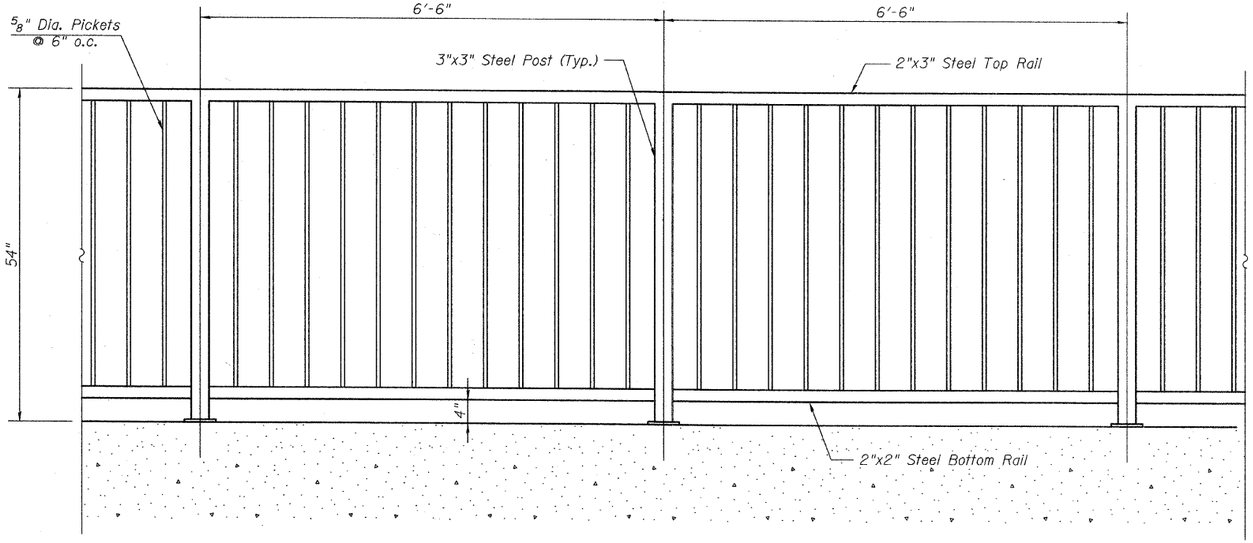
ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	420
Stone RipRap, Class A5	Sq. Yd.	187
Geotechnical Fabric for Ground Stabilization	Sq. Yd.	187
Structure Excavation	Cu. Yd.	2105
Removal and Disposal of Unsuitable Material For Structures	Cu. Yd.	1506
Reinforcement Bars	Pound	373,870
Reinforcement Bars, Epoxy Coated	Pound	320
Bar Splicers	Each	240
Steel Railing (Special)	Foot	66
Name Plates	Each	1
Concrete Box Culverts	Cu. Yds.	1145.7
Rock Fill - Foundation	Tons	2240



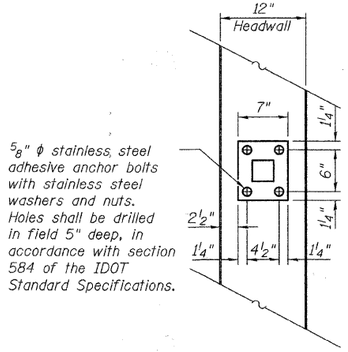
METHOD OF MEASUREMENT FOR QUANTITY CALCULATIONS

INDEX OF SHEETS

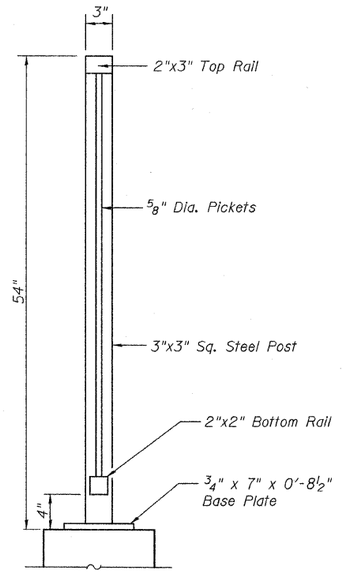
1. General Plan and Elevation
2. General Data
3. Temporary Concrete Barrie
4. Stage Construction Details
5. Culvert Details
6. Culvert Details
7. WingWall Details
8. Bar Splicer Assembly Details
9. Boring Logs



HEADWALL RAILING



BASE PLATE DETAIL



TYPICAL SECTION

DESIGNED	PRD
CHECKED	AWW
DRAWN	PRD
CHECKED	AWW

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GENERAL DATA
STRUCTURE NO. 045-6400

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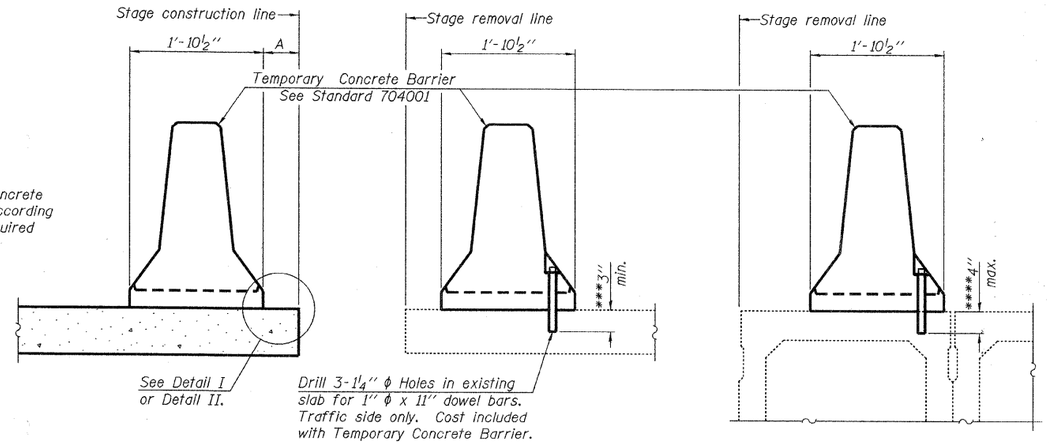
200 West Front Street
Wheaton, IL 60187

SHEET NO. 2
9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	Kane	215	140
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x 10" steel ℙ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

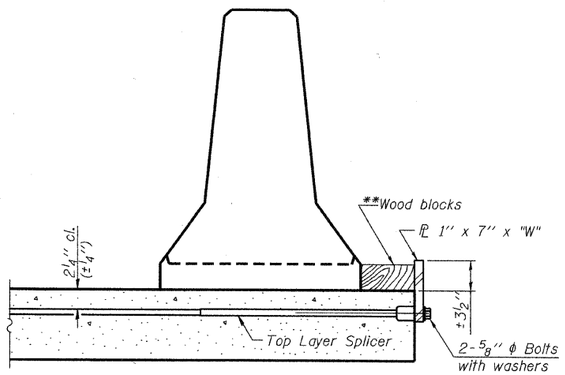
Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

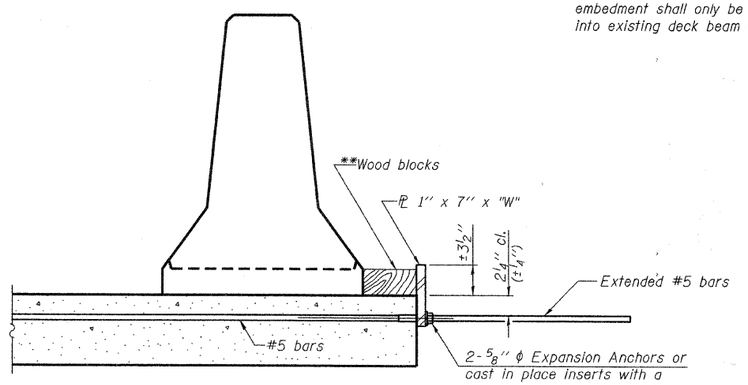
SECTIONS THRU SLAB OR DECK BEAM

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



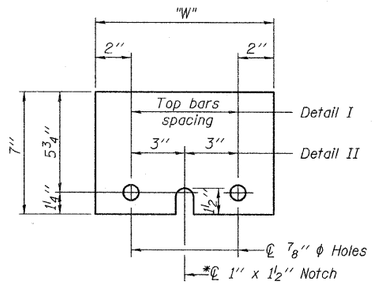
DETAIL I



DETAIL II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"



STEEL RETAINER ℙ 1" x 7" x 10"

* Required only with Detail II

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
STRUCTURE NO. 045-6400

DESIGNED	PRD
CHECKED	AWW
DRAWN	PRD
CHECKED	AWW

R-27 11-1-09

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SHEET NO. 3
9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	Kane	215	141
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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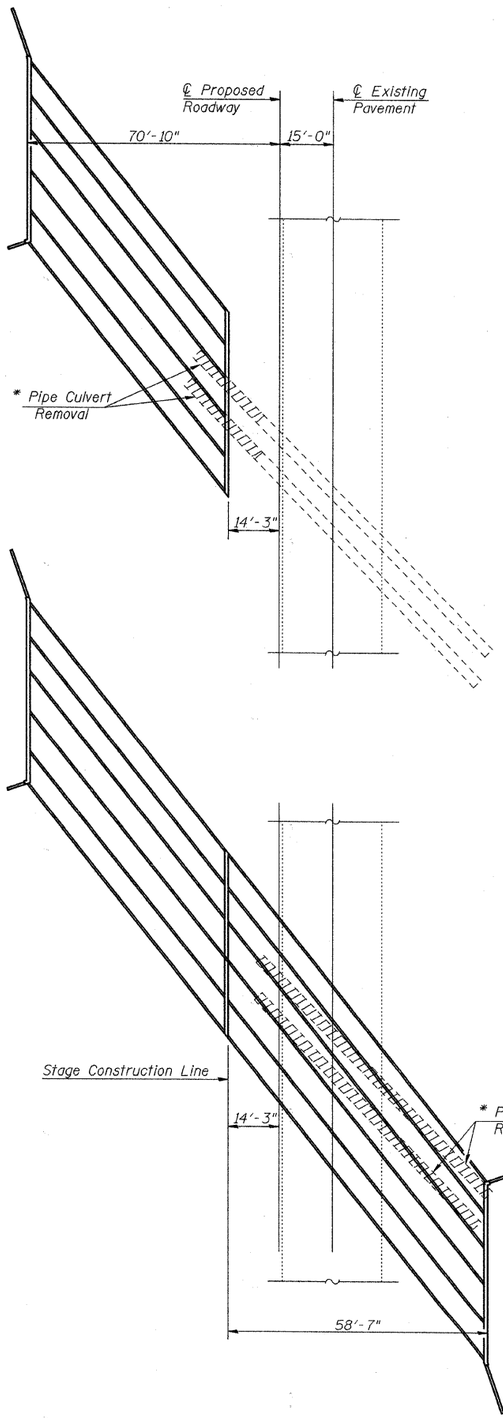
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

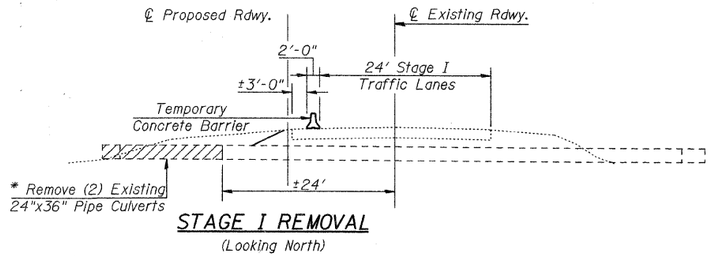
CONSTRUCTION STAGING SEQUENCE

1. Perform necessary excavation and remove required portion of existing 24" x 36" pipe culverts
2. Construct Stage I Culvert
3. Remove existing roadway and remainder of pipe culverts
4. Construct Stage II Culvert

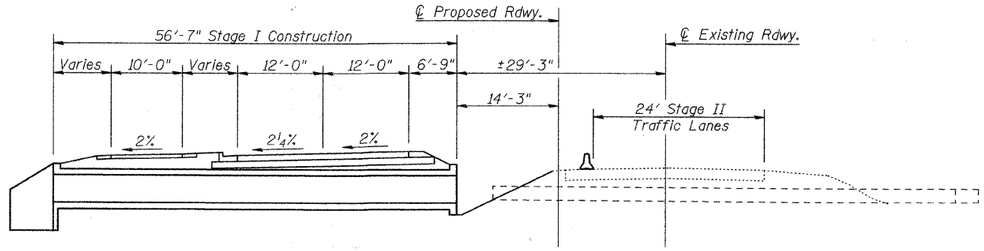


STAGE I

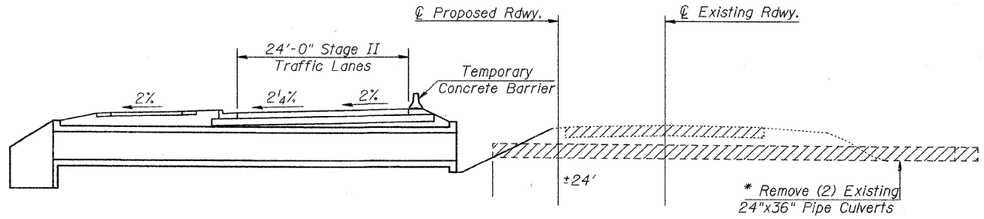
STAGE II



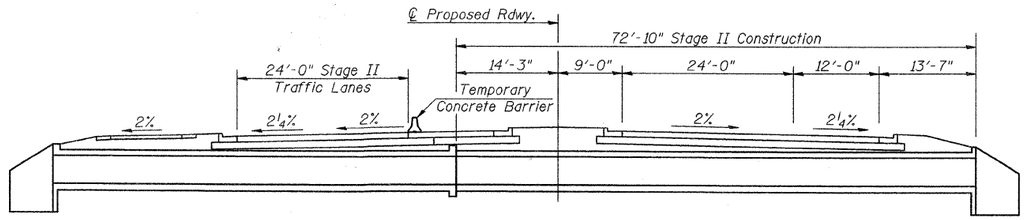
STAGE I REMOVAL
(Looking North)



STAGE I CONSTRUCTION
(Looking North)



STAGE II REMOVAL
(Looking North)



STAGE II CONSTRUCTION
(Looking North)

* Cost of Existing Pipe Culvert Removal included in the cost of CONCRETE BOX CULVERTS.

DESIGNED	PRD
CHECKED	AWW
DRAWN	PRD
CHECKED	AWW

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 045-6400

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SHEET NO. 4
9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	Kane	215	142
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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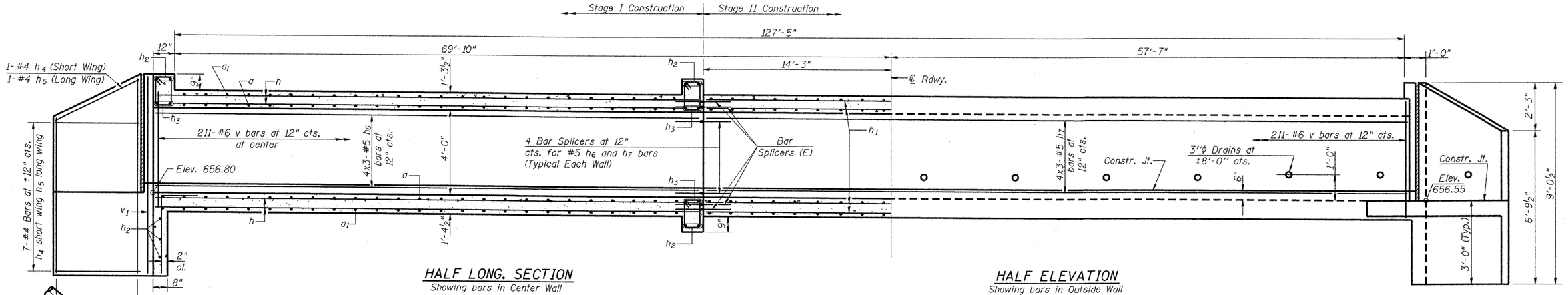
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FIELD CUTTING DIAGRAM

* Order $v_2(E)$ full length. Cut as shown and use remainder of bars in opposite wing.

NOTES

U.N.O. - Unless Noted Otherwise
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
*Measured along centerline of culvert

DESIGNED	PRD
CHECKED	AWW
DRAWN	PRD
CHECKED	AWW

CULVERT DETAILS
STRUCTURE NO. 045-6400

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Wheaton, IL 60187

SHEET NO. 5
9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	Kane	215	143
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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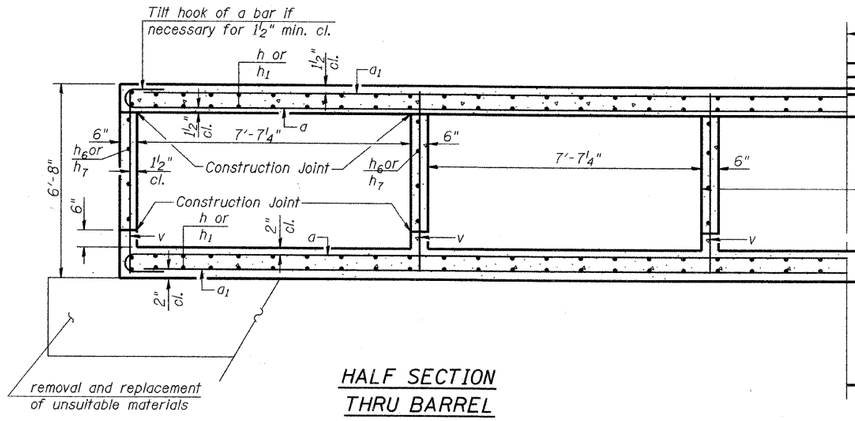
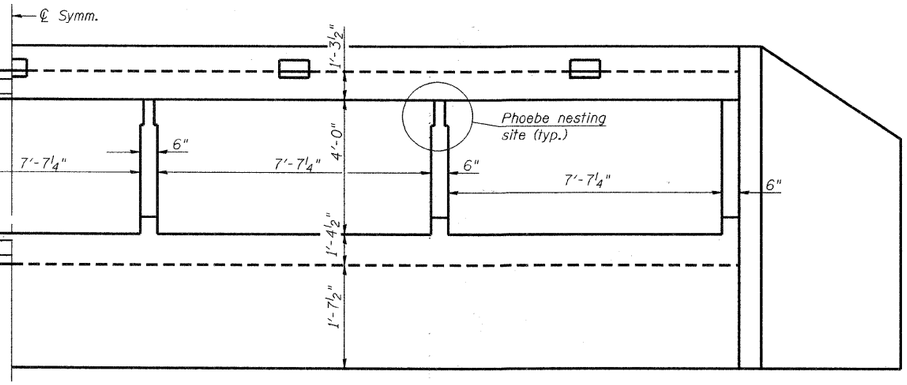
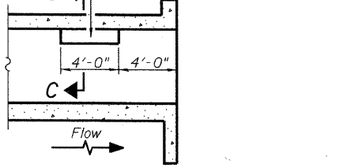
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



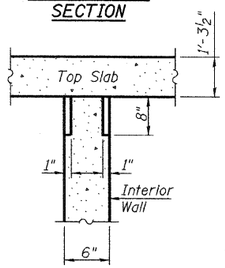
HALF SECTION THRU BARREL



HALF END ELEVATION

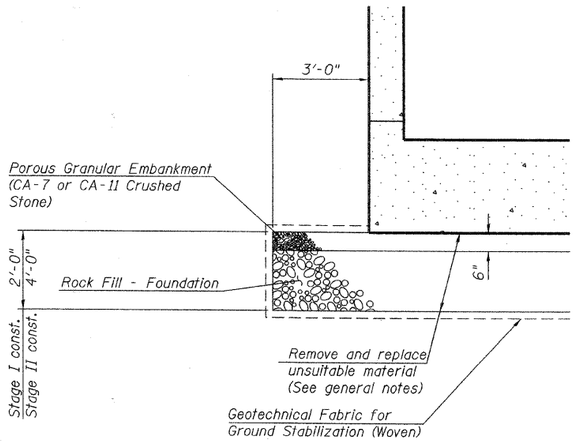


LONGITUDINAL SECTION

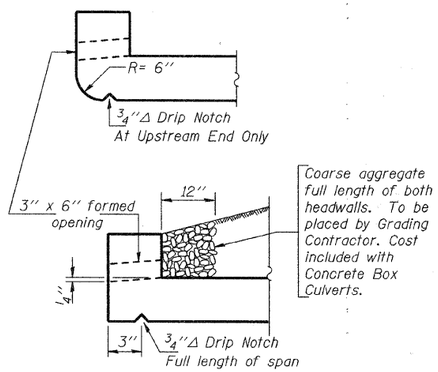


SECTION C-C

PHOEBE NESTING SITE DETAILS
(Downstream End Only)



SUBSURFACE DETAIL



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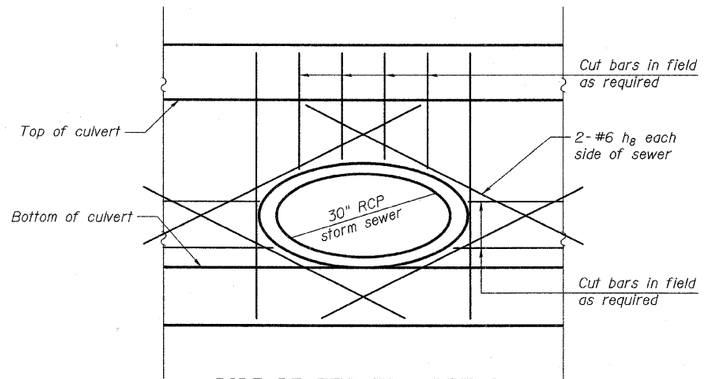

PIPE PENETRATION DETAIL

DESIGNED	PRD
CHECKED	AWW
DRAWN	PRD
CHECKED	AWW

CULVERT DETAILS
STRUCTURE NO. 045-6400

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Wheaton, IL 60187

SHEET NO. 6
9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	Kane	215	144
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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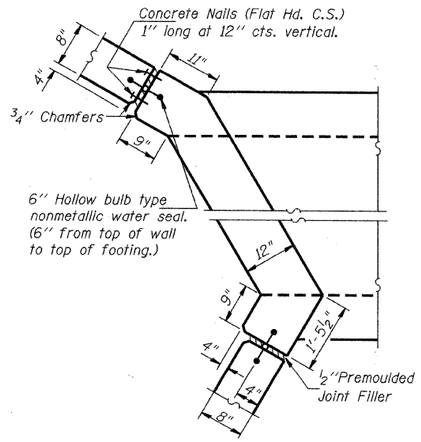
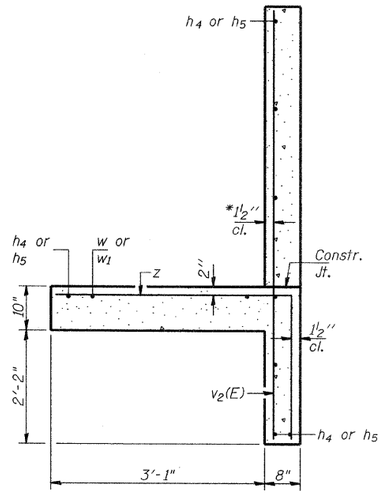
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



CORNER DETAIL

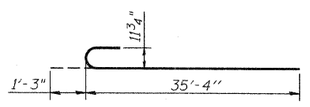


SECTION B-B

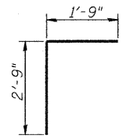
* $v_2(E)$ bars shall not be placed more than $1\frac{1}{2}$" cl. from back face of wingwalls.

BILL OF MATERIAL

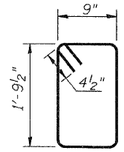
Bar	No.	Size	Length	Shape
a	1044	#9	36'-7"	
a_1	1044	#9	35'-4"	
d	80	#4	4'-6"	
h	648	#7	32'-4"	
h_1	648	#7	41'-2"	
h_2	16	#6	34'-2"	
h_3	16	#7	33'-9"	
h_4	20	#4	4'-6"	
h_5	20	#4	14'-6"	
h_6	72	#5	31'-9"	
h_7	72	#5	40'-6"	
h_8	8	#6	7'-0"	
s	195	#4	5'-10"	
s_1	65	#4	5'-8"	
v	1266	#6	6'-4"	
v_1	8	#5	8'-9"	
$v_2(E)$	20	#5	15'-3"	
w	10	#5	8'-4"	
w_1	10	#5	20'-2"	
z	52	#4	6'-2"	
Bar Splicers			Each	240
Concrete Box Culverts			Cu. Yd.	1145.7
Reinforcement Bars			Pound	373,870
Reinforcement Bars, Epoxy Coated			Pound	320



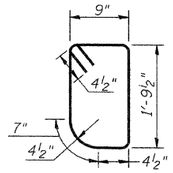
BAR a



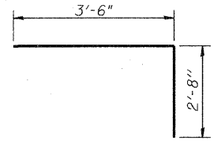
BAR d



BAR s



BAR s_1



BAR z

MIN. BAR LAPS

#4 bar - 1'-4"
#5 bar - 1'-8"
#6 bar - 2'-0"
#7 bar - 2'-9"
#9 bar - 4'-7"

DESIGNED	PRD
CHECKED	AWW
DRAWN	PRD
CHECKED	AWW

WINGWALL DETAILS
STRUCTURE NO. 045-6400

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SHEET NO. 7
9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	Kane	215	145
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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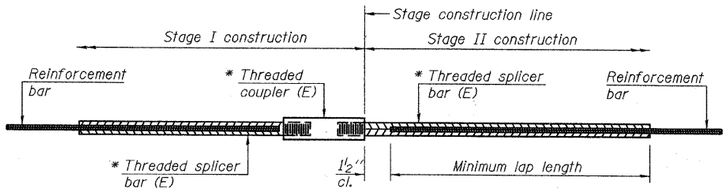
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

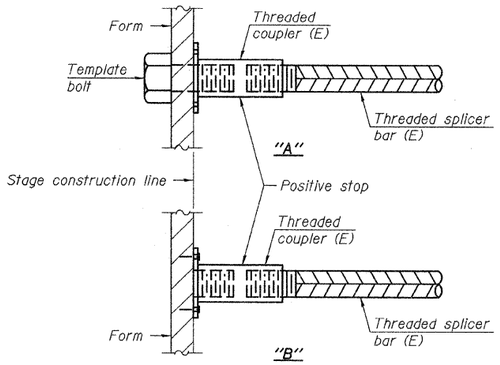
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

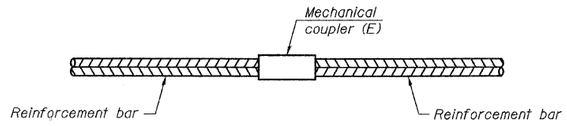
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Top Slab	#7	108	Table 1
Bot. Slab	#5	108	Table 1
Walls	#4	24	Table 1



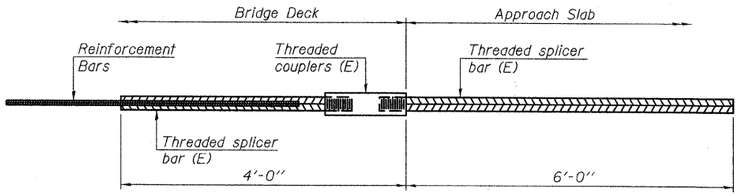
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



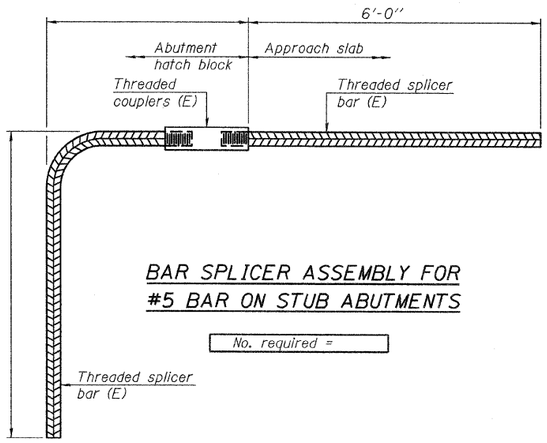
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See special provision for Mechanical Splicers.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 045-6400

DESIGNED	PRD
CHECKED	AWW
DRAWN	PRD
CHECKED	AWW

BSD-1 11-1-09

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SHEET NO. 8
9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	Kane	215	146
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT **Orchard Road Improvements, Jericho Rd. to U.S. Route 30, Kane County, IL**

CLIENT **RJN Group, Inc., Wheaton, Illinois**

BORING **CV-1** DATE STARTED **8-30-02** DATE COMPLETED **8-30-02** JOB **L-55,271**

ELEVATIONS
GROUND SURFACE **657.0**
END OF BORING **632.0**

WATER LEVEL OBSERVATIONS
WHILE DRILLING **8.0 '**
AT END OF BORING **3.5 '**
24 HOURS

Sta. 135+07; 74' RT

SAMPLE NO.	TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	1-2-2	36.1	1.75*		1.8	655.2	Stiff black and dark brown SILTY CLAY (topsoil), very moist A-7-6
2	SS	WOH	38.2	<0.25*		3.5	653.5	Very soft dark brown and gray CLAY, little organic, very moist A-7-6
3	SS	0-1-1	25.6	0.75*		5.5	651.5	Soft to stiff brown and gray CLAY, trace organic, very moist A-6/A-7-6
4	SS	2-3-2	17.3	1.25*		8.0	649.0	Stiff gray SILTY CLAY LOAM, occasional silt seams, trace gravel, moist A-6
A			6.5			9.0	648.0	Medium dense brown SAND and GRAVEL saturated A-1-a
5 B	SS	7-8-8	5.9	0.5*		10.5	646.5	Medium dense brown and gray CLAY LOAM with sand layers, moist A-2-4/A-4
6	SS	2-4-6	8.8	0.8 B		13.0	644.0	Loose to medium dense brown SANDY LOAM, trace gravel, moist A-2-4
7	SS	5-7-11	10.0	3.0 S @ 10%				WOH = Weight of Hammer
8	SS	14-17-15	11.0	0.8 S @ 10%		16.0	639.0	Medium dense to dense brown SILTY LOAM, trace gravel, occasional Cobbles, moist A-4
9	SS	7-10-10	10.8			20.5	636.5	B = Bulge Failure at 15% Strain S = Shear Failure Medium dense gray SAND, little gravel, saturated A-1-b
10	SS	17-23-25	12.4					Dense to medium dense gray fine SAND, trace gravel, saturated A-1-b
11	SS	8-14-15	12.4					* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **53**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

End of Boring at 25.0'

PROJECT **Orchard Road Improvements, Jericho Rd. to U.S. Route 30, Kane County, IL**

CLIENT **RJN Group, Inc., Wheaton, Illinois**

BORING **CV-2** DATE STARTED **8-30-02** DATE COMPLETED **8-30-02** JOB **L-55,271**

ELEVATIONS
GROUND SURFACE **661.1**
END OF BORING **636.1**

WATER LEVEL OBSERVATIONS
WHILE DRILLING **10.5 '**
AT END OF BORING **10.0 '**
24 HOURS

Sta. 135+53; 2' LT

SAMPLE NO.	TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	2-4-6	26.2	2.0*		1.7	659.4	FILL - Black and brown SANDY LOAM, little gravel, moist A-6(5)
2	SS	4-5-7	12.1	4.0*		3.5	657.6	FILL - Brown SANDY LOAM, little gravel, trace organic, moist A-4
3	SS	12-14-15	8.3			5.5	655.6	FILL - Brown and black SANDY LOAM with gravel, moist A-2-4
4	SS	2-2-3	23.3	1.0 B		8.0	653.1	Stiff gray and brown CLAY, trace organic, moist to very moist A-6
5	SS	2-3-3	15.7	0.8 B				B = Bulge Failure at 15% Strain
6	SS	3-5-5	15.2	0.7 B		13.0	648.1	Loose to medium dense gray SILTY LOAM, occasional sand seams, trace gravel, moist to very moist A-4
7	SS	5-7-12	10.2	1.0 B		15.5	645.6	Medium dense gray SILTY LOAM, moist to dense A-4
8	SS	1-2-4	24.1			20.0	641.1	Loose to medium dense gray fine SAND, trace gravel, saturated A-3
9	SS	2-4-10	20.7			23.0	638.1	* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer. Dense gray fine SAND, saturated A-3
10	SS	15-25-25	17.0					Dense gray SILTY LOAM, trace gravel, moist A-4
11	SS	15-23-25	10.2	2.5*				

DRILL RIG NO. **53**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

End of Boring at 25.0'

PROJECT **Orchard Road Improvements, Jericho Rd. to U.S. Route 30, Kane County, IL**

CLIENT **RJN Group, Inc., Wheaton, Illinois**

BORING **CV-3** DATE STARTED **8-30-02** DATE COMPLETED **8-30-02** JOB **L-55,271**

ELEVATIONS
GROUND SURFACE **657.5**
END OF BORING **647.5**

WATER LEVEL OBSERVATIONS
WHILE DRILLING **8.0 '**
AT END OF BORING **9.0 '**
24 HOURS

Sta. 136+33; 65' LT

SAMPLE NO.	TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	3-3-2	29.3	1.0*		2.0	655.5	Stiff black SILTY CLAY (topsoil), very moist A-7-6
2	SS	2-2-3	29.5	0.25*		3.5	654.0	Soft gray CLAY LOAM, trace organic, very moist A-6
3	SS	2-2-2	15.2	0.5*				Soft to medium stiff gray SILTY CLAY LOAM, moist A-7/A-6
A			17.3	0.8 B		6.5	651.0	
4 B	SS	2-3-3	17.0	2.0*		8.0	649.5	Loose gray SILTY LOAM, occasional sand seams, moist A-4
5	SS	3-3-3	21.9					Loose gray SANDY LOAM, saturated A-1-b
								End of Boring at 10.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

B = Bulge Failure at 15% Strain

DRILL RIG NO. **53**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

DESIGNED	PRD
CHECKED	AWW
DRAWN	PRD
CHECKED	AWW

BORING LOGS
STRUCTURE NO. 045-6400

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Wheaton, IL 60187

SHEET NO. 9
9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	Kane	215	147
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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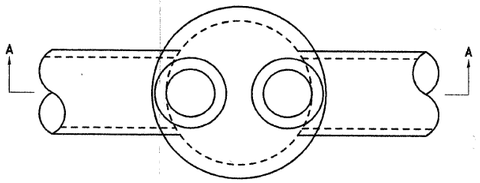
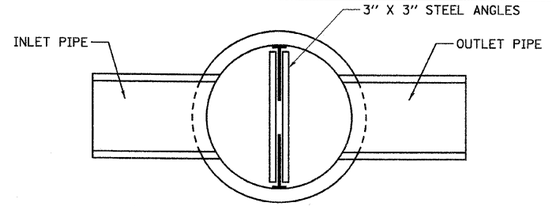
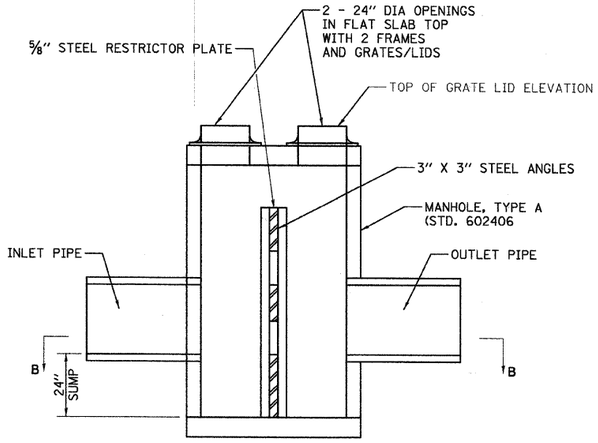


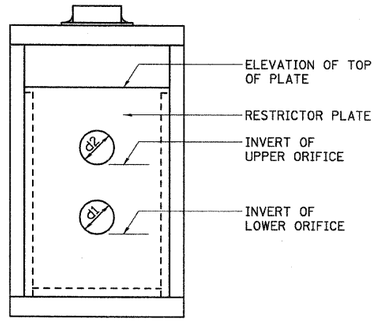
PLAN



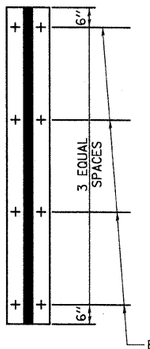
SECTION B-B



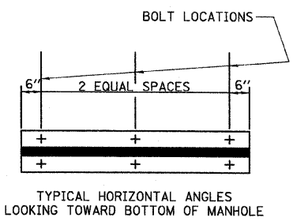
SECTION A-A



SECTION C-C



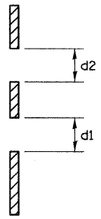
TYPICAL VERTICAL ANGLES
LOOKING TOWARD MANHOLE WALL



TYPICAL HORIZONTAL ANGLES
LOOKING TOWARD BOTTOM OF MANHOLE

TOTAL BOLTS REQUIRED: 22

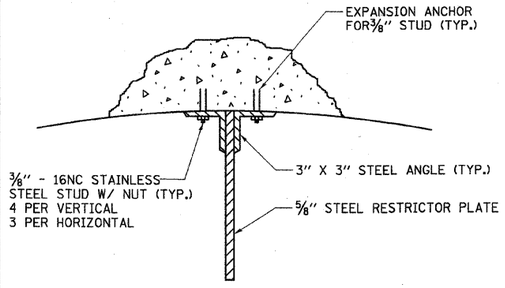
NOTE:
1. ANGLES SHOULD BE 3" X 3" X3/8"
2. VERTICAL ANGLES SHOULD EXTEND FROM THE BOTTOM OF THE RESTRICTOR PLATE TO THE TOP.
3. HORIZONTAL ANGLES SHOULD EXTEND FROM VERTICAL ANGLE TO VERTICAL ANGLE.



ORIFICE DETAIL

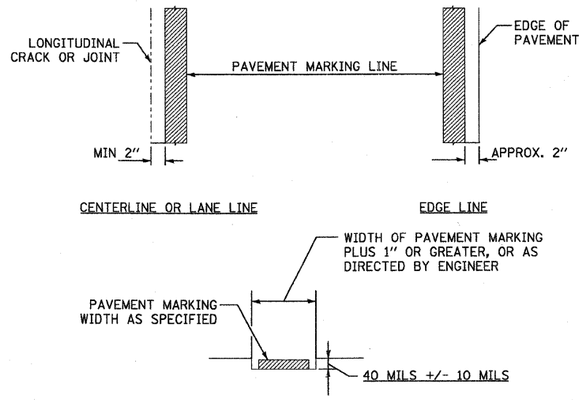
STEEL ANGLE BOLTING DETAILS

BASIN LOCATION	MANHOLE DIAMETER	FRAME AND GRATE	LOWER ORIFICE DIA. d1 (INCHES)	UPPER ORIFICE DIA. d2 (INCHES)	INVERT OF LOWER ORIFICE	INVERT OF UPPER ORIFICE	ELEVATION OF TOP OF PLATE OVERFLOW
ROUTE 30	5'	TY 1 - OL	3.3	6.6	658.50	661.24	662.82
COUNTRYSIDE	5'	TY 1 - OL	3.0	3.5	656.50	658.00	661.50
JERICHO	5'	TY 1 - OL	4.9	10.2	659.50	662.35	664.00



NOTE:
1. ALL STEEL ANGLES AND PLATES TO BE GALVANIZED AFTER FABRICATION.
2. ALL RESTRICTOR PLATES, ANGLES AND HARDWARE TO BE INCLUDED IN THE COST OF THE MANHOLE.
3. BASIS OF PAYMENT: "MANHOLES, TYPE A, 6 FT. DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE" EACH

ANGLE FASTENER DETAIL



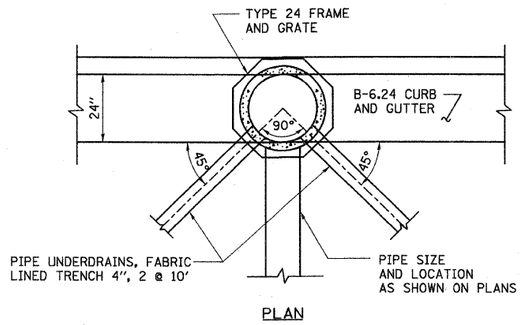
GROOVE INSTALLATION - 15 MIL POLYUREA THICKNESS

FOR 20 MIL APPLICATION USE 45 MILS +/- 10 MILS

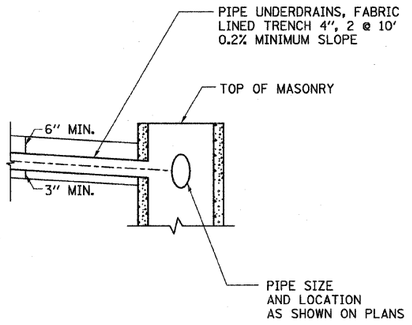
GENERAL NOTES:

1. UNLESS OTHERWISE ALLOWED BY THE ENGINEER, WAIT 10 DAYS OR LONGER TO GRIND A GROOVE INTO NEW ASPHALT PAVEMENT TO AVOID DAMAGE TO THE NEW PAVEMENT BY THE GROOVING AND CLEANING OPERATION.
2. PAVEMENT MARKINGS SHALL CONFORM WITH IDOT HIGHWAY STANDARD 780001-01 (OR LATEST) UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR DETAILS ON THE SHEET.

STIPING GROOVE INSTALLATION



PLAN



ELEVATION

UNDERDRAIN DETAIL

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED - MK	REVISED -		
DRAWN - DW	REVISED -		
CHECKED - MH	REVISED -		
DATE - 12/20/2010	REVISED -		

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

MANHOLE WITH RESTRICTOR PLATE

SCALE: NTS | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	148
		CONTRACT NO. 63541		
	ILLINOIS FED. AID PROJECT			

49.9999 / / IN.
dwgdes
12/17/2010
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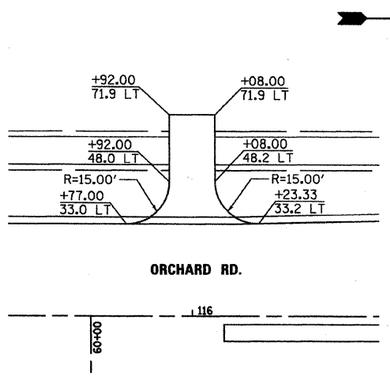
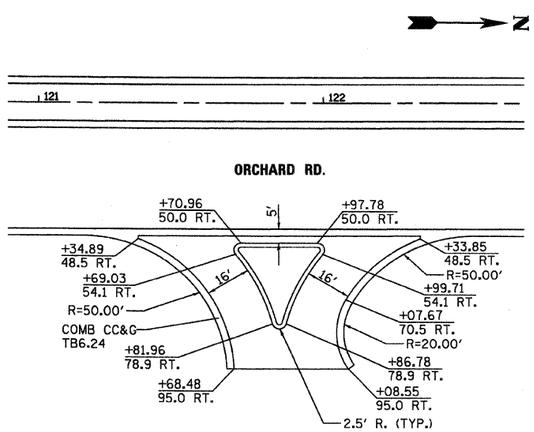
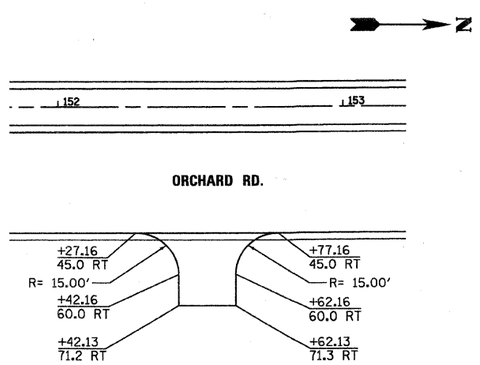


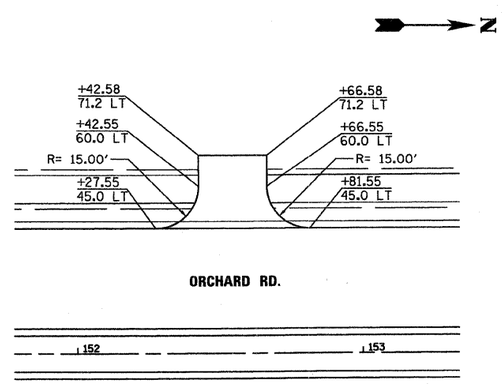
FIELD ENTRANCE STA. 116+00.00 LT



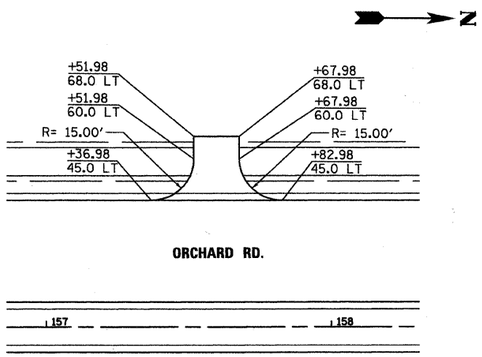
COMMERCIAL ENTRANCE STA. 121+84.37 RT



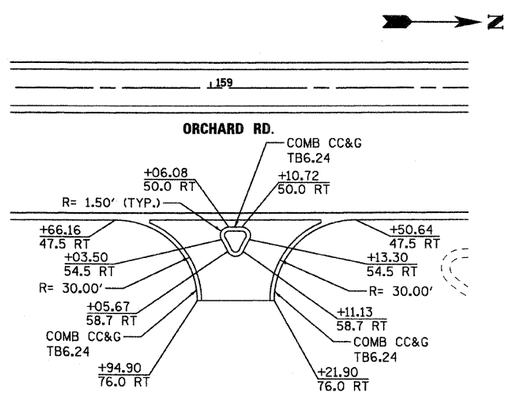
INDUSTRIAL ENTRANCE STA. 152+52.13 RT



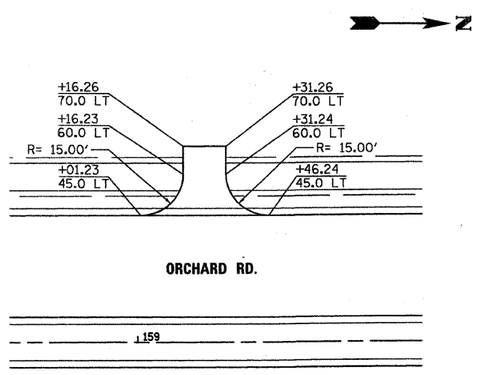
FIELD ENTRANCE STA. 152+54.58 LT



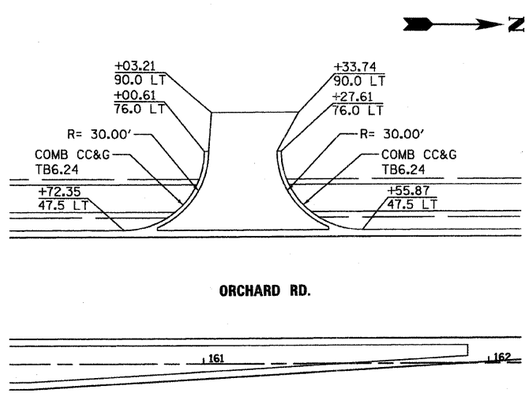
FIELD ENTRANCE STA. 157+59.98 LT



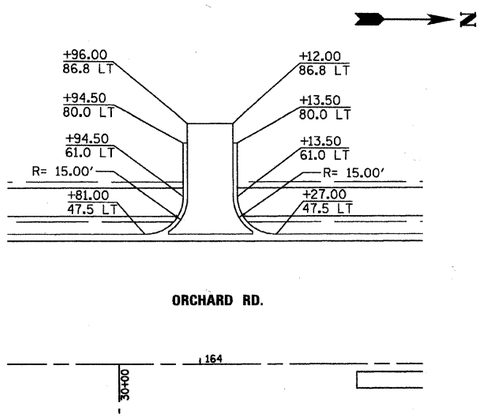
COMMERCIAL ENTRANCE STA. 159+08.40 RT



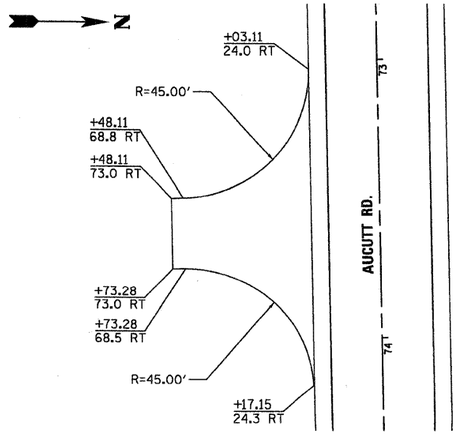
FIELD ENTRANCE STA. 159+23.76 LT



COMMERCIAL ENTRANCE STA. 161+14.11 LT



PRIVATE ENTRANCE STA. 164+04.00 LT



COMMERCIAL ENTRANCE STA. 73+60.70 RT

NOTE:

SEE DISTRICT 1 DETAILS BD-01 AND BD-02 FOR DRIVEWAY TYPICAL SECTIONS.

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED	MK	REVISED	-
DRAWN	DW	REVISED	-
CHECKED	MH	REVISED	-
DATE	12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

DETAILS

SCALE: NTS | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	149
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

49.9999 - / IN.
dwadas
12/17/2018
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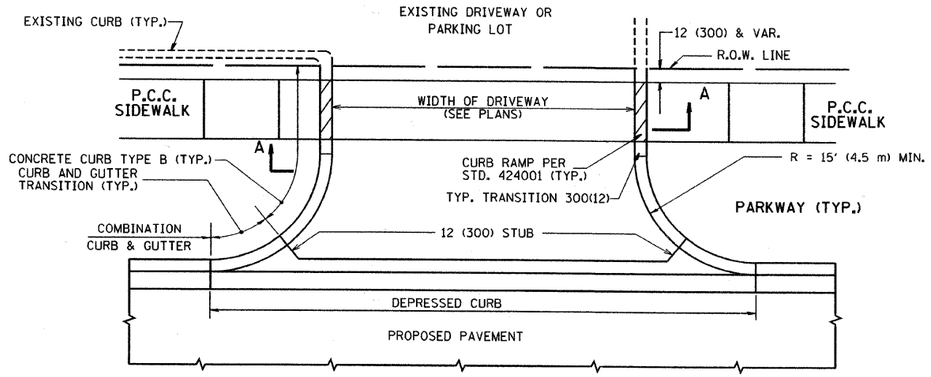
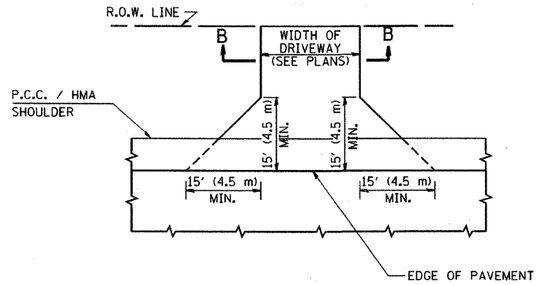
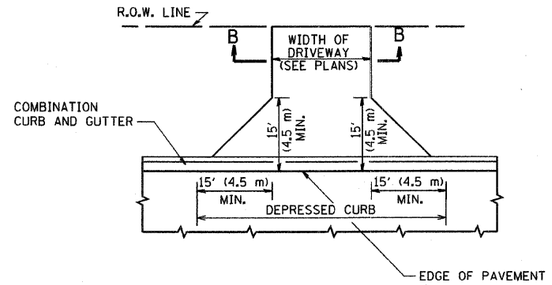


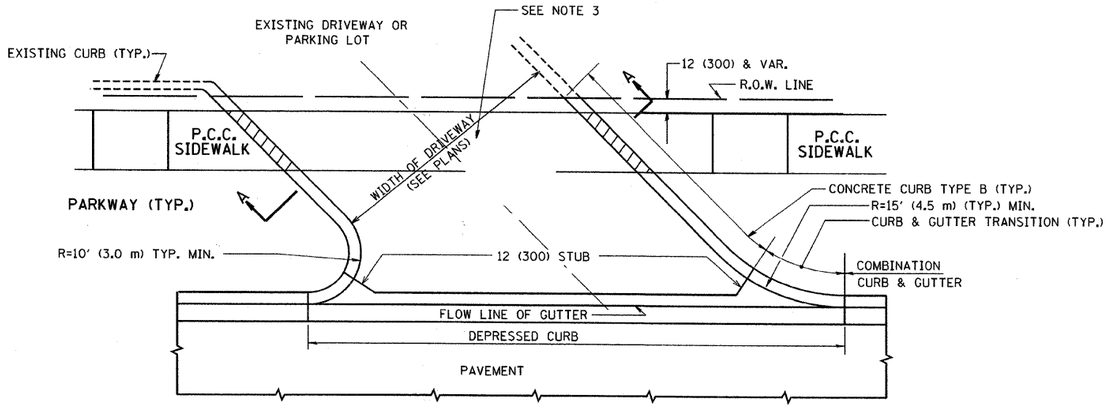
WITH CONCRETE CURB, TYPE B



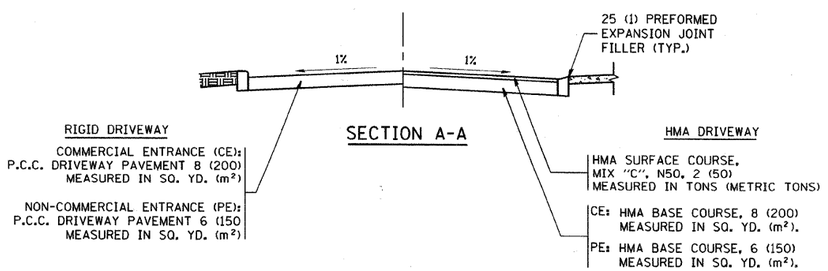
ADJACENT TO P.C.C. / HMA SHOULDER

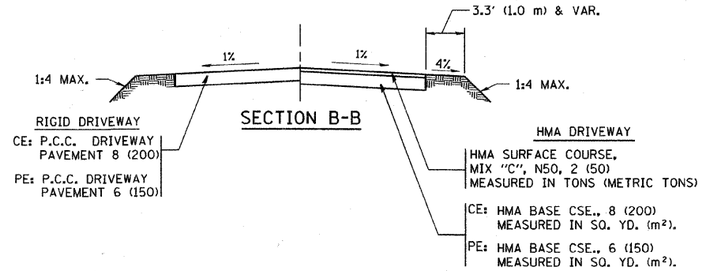


ADJACENT TO CURB AND GUTTER



WITH CONCRETE CURB, TYPE B





RURAL FIELD ENTRANCE (FE)

HMA SURFACE COURSE,
MIX "C", N50, 2 (50)
MEASURED IN TONS (METRIC TONS)

AGGREGATE BASE CSE., TYPE B, 8 (200)
MEASURED IN SQ. YD. (m^2).

GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

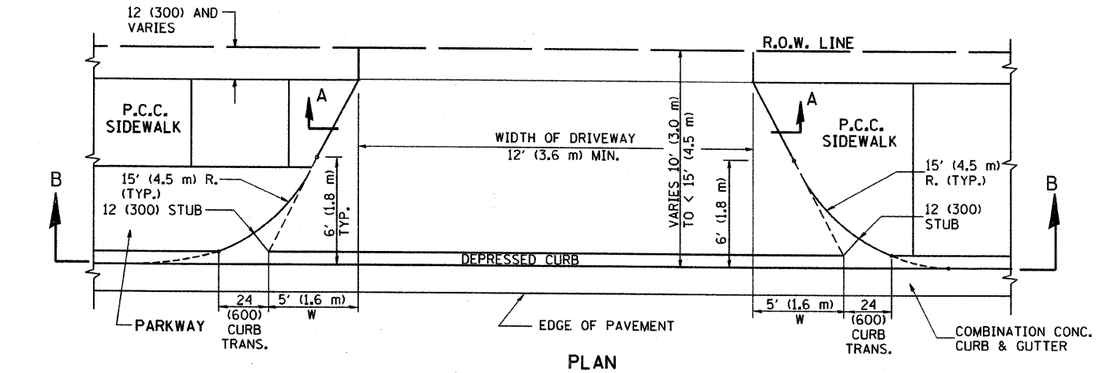
FILE NAME = c:\projects\diststd22x34\bd01.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - M. GOMEZ 04-06-01
		DRAWN -	REVISED - P. LaFLUER 04-15-03
	PLOT SCALE = 49.9999 ' / IN.	CHECKED -	REVISED - R. BORO 01-01-07
	PLOT DATE = 6/12/2008	DATE - 11-04-95	REVISED - R. BORO 06-11-08

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS – DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)

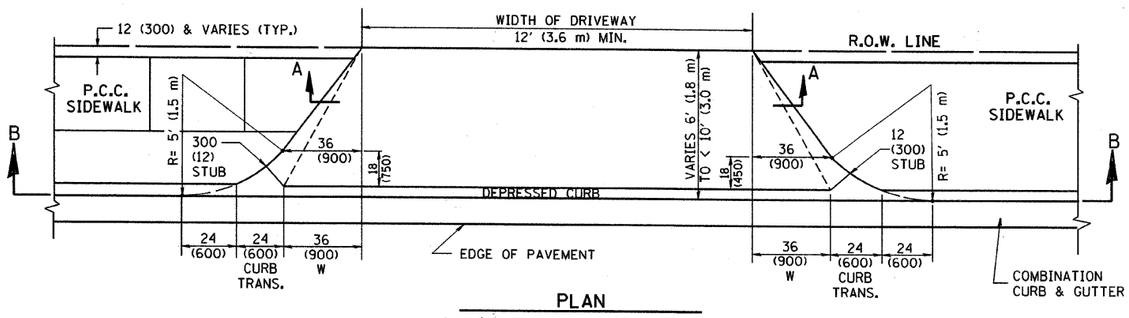
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	150
	BD0156-07 (BD-01)	CONTRACT NO. 63541		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



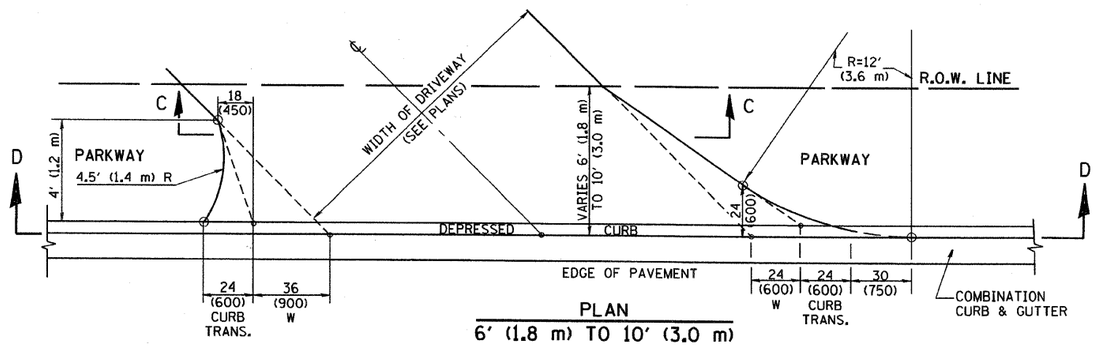
PLAN

10' (3.0 m) TO < 15' (4.5 m)



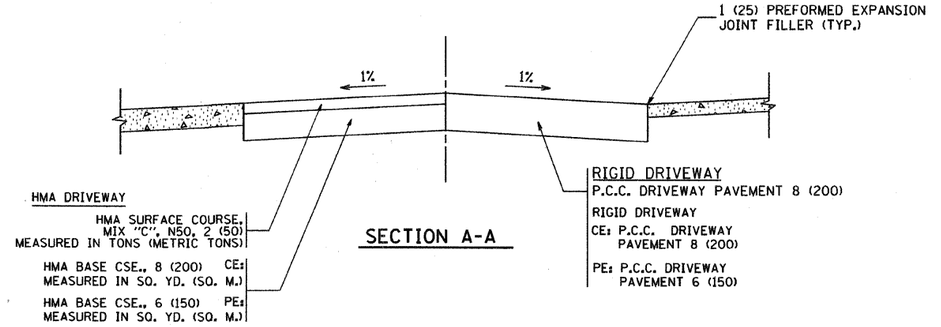
PLAN

6' (1.8 m) TO < 10' (3.0 m)

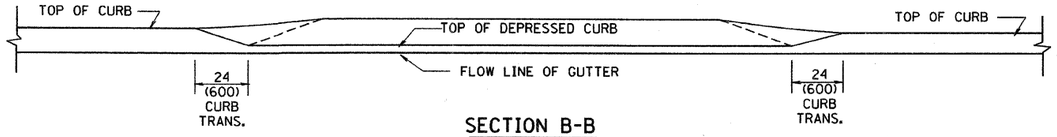


PLAN

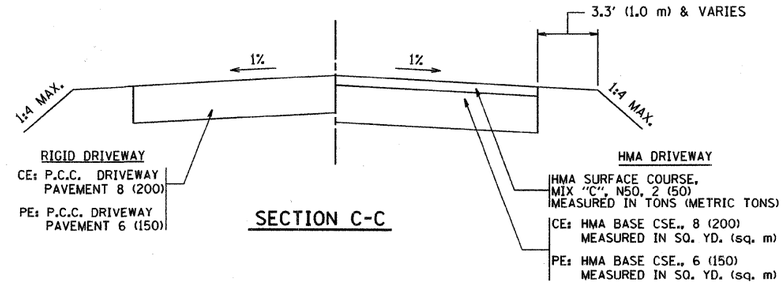
6' (1.8 m) TO 10' (3.0 m)



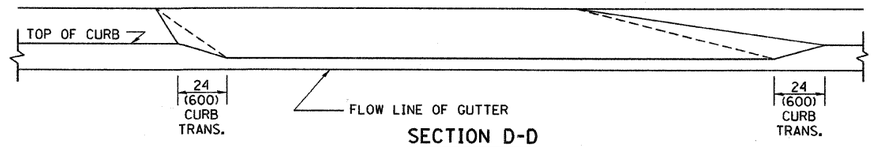
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

GENERAL NOTES

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED.

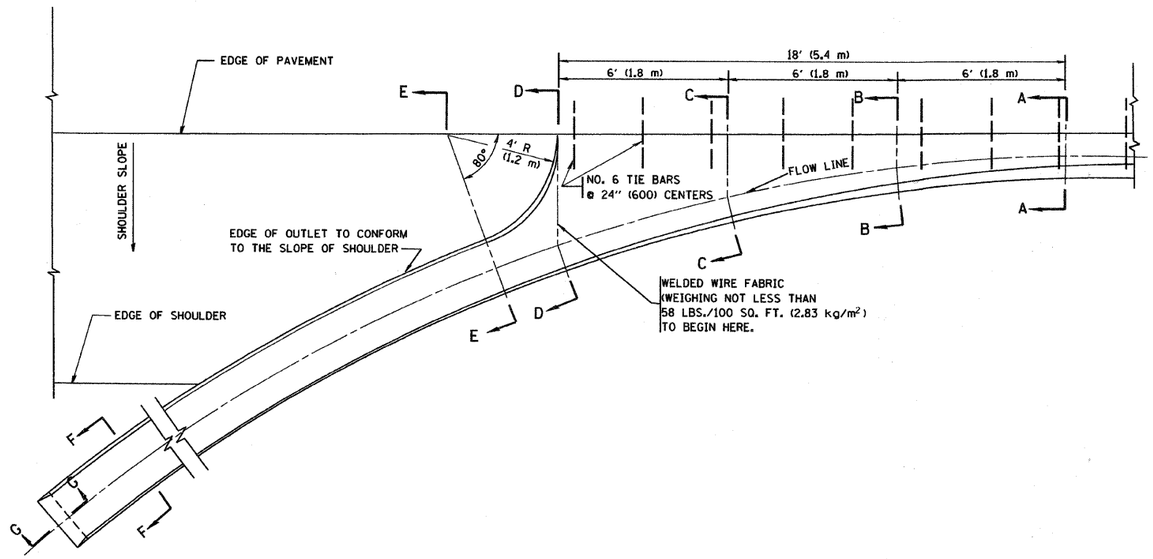
FILE NAME = W:\diststd\22x34\bd02.dgn	USER NAME = gaglianobt	DESIGNED - R. SHAH	REVISED - T. HOLTZ 04-08-97
		DRAWN -	REVISED - M. GOMEZ 04-06-01
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - P. LaFLEUR 04-15-03
	PLOT DATE = 1/4/2008	DATE - 11-06-95	REVISED - R. BORO 01-01-07

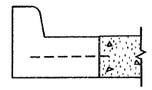
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS
DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

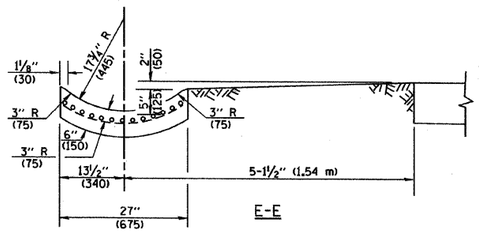
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	151
	BD400-02 (BD-02)	CONTRACT NO. 63541		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



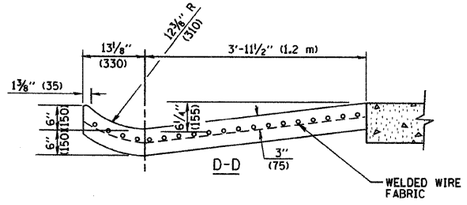


A-A *

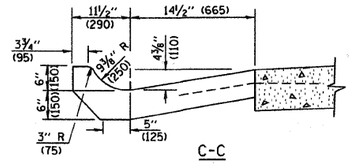
* DIMENSIONS OF THE CURB & GUTTER AT SECTION A-A ARE SHOWN ON STATE STANDARD 606001.
FOR DETAILS OF OUTLET FOR CONCRETE CURB & GUTTER, TYPE B-6.24 (B-15.60) SEE STATE STANDARD 606006.



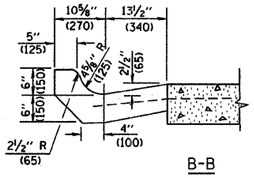
E-E



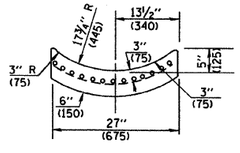
D-D



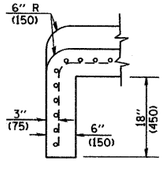
C-C



B-B



F-F



G-G

GENERAL NOTES

GUTTER OUTLET SHALL BE TIED TO THE PAVEMENT IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON STANDARD 420001.

TIE BARS SHALL BE NO. 20 (NO.6) AT 24" (600) CENTERS UNLESS OTHERWISE SHOWN.

IF THE AVERAGE GRADE OF PAVEMENT FOR THE DISTANCE FROM SECTION A-A TO D-D EXCEEDS 2%, THIS DISTANCE SHALL BE INCREASED 6' (1.8 m) FOR EACH 1% INCREASE IN GRADE.

QUANTITIES

FOR SECTION A-A TO E-E AND CURTAIN WALL=
1.25 CU. YDS. (0.96 m^3) CLASS SI CONCRETE (OUTLET) FOR 9" (225) PAV'T.
1.27 CU. YDS. (0.96 m^3) CLASS SI CONCRETE (OUTLET) FOR 10" (250) PAV'T.
FOR SECTION F-F=
0.045 CU. YDS. (0.03 m^3) CLASS SI CONCRETE PER ft. (m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

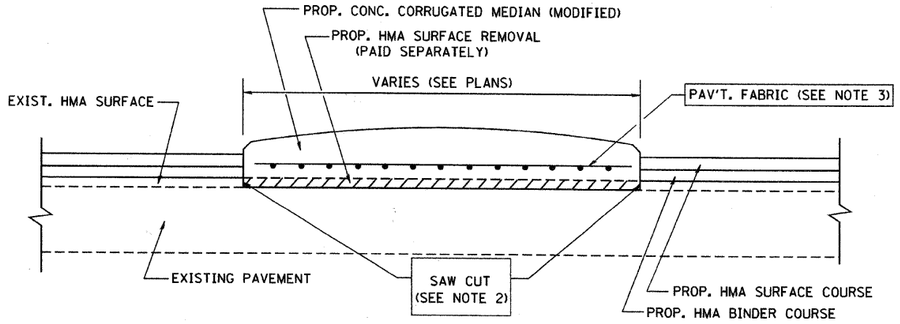
FILE NAME = W:\diststd\22x34\bd03.dgn	USER NAME = gagliangbt	DESIGNED - M. DE YONG	REVISED - R. SHAH 09-09-94
		DRAWN -	REVISED - R. SHAH 10-25-94
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - E. GOMEZ 12-21-00
	PLOT DATE = 1/4/2008	DATE - 08-04-86	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OUTLET FOR CONCRETE CURB AND GUTER

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

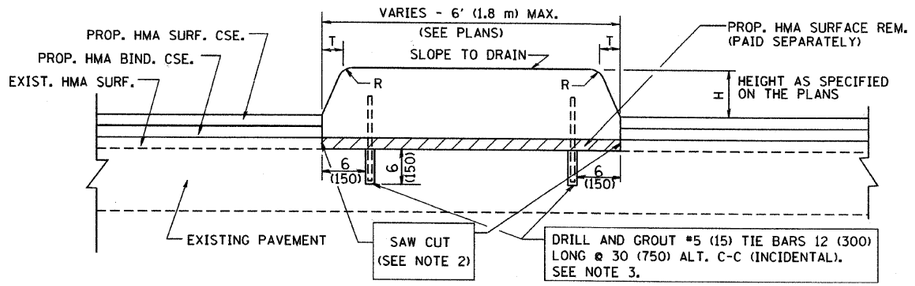
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	152
	BD600-01 (BD-03)	CONTRACT NO. 63541		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:
1. CORRUGATED MEDIAN (MODIFIED) SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 606 OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE PORTIONS OF STATE STANDARD 606306.
2. WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY DELETE THE SAW CUT IF A NEAT JOINT CAN BE OBTAINED BY MILLING THE HMA SURFACE TO BE REMOVED. SAW CUT WILL BE INCLUDED IN THE COST OF CORRUGATED MEDIAN (MODIFIED)
3. PAVEMENT FABRIC WILL BE INCLUDED IN THE COST OF CORRUGATED MEDIAN (MODIFIED)

DETAILS FOR CORRUGATED MEDIAN (MODIFIED)

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT (SQUARE METER) FOR "CORRUGATED MEDIAN (MODIFIED)"



H	R	T
6(150)	1(25)	1(25)
9(225)	1(25)	2(50)

NOTES:
1. CONCRETE MEDIAN TYPE SB (DOWELLED) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STATE STANDARD 606301 AND SECTION 606 OF THE STANDARD SPECIFICATIONS.
2. WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY DELETE THE SAW CUT IF A NEAT JOINT CAN BE OBTAINED BY MILLING THE HMA SURFACE TO BE REMOVED. SAW CUT WILL BE INCLUDED IN THE COST OF "CONCRETE MEDIAN TYPE SB (DOWELLED)"
3. FOR MEDIAN WIDTH LESS THAN 4' (1.2 m) USE ONE ROW OF #5 (15) BARS @ 30 (750) C-C ALONG THE MEDIAN CENTERLINE. TIE BARS WILL BE INCLUDED IN THE COST OF "CONCRETE MEDIAN TYPE SB (DOWELLED)"

DETAILS FOR CONCRETE MEDIAN TYPE SB (DOWELLED)

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT (SQUARE METER) FOR "CONCRETE MEDIAN TYPE SB (DOWELLED)"

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

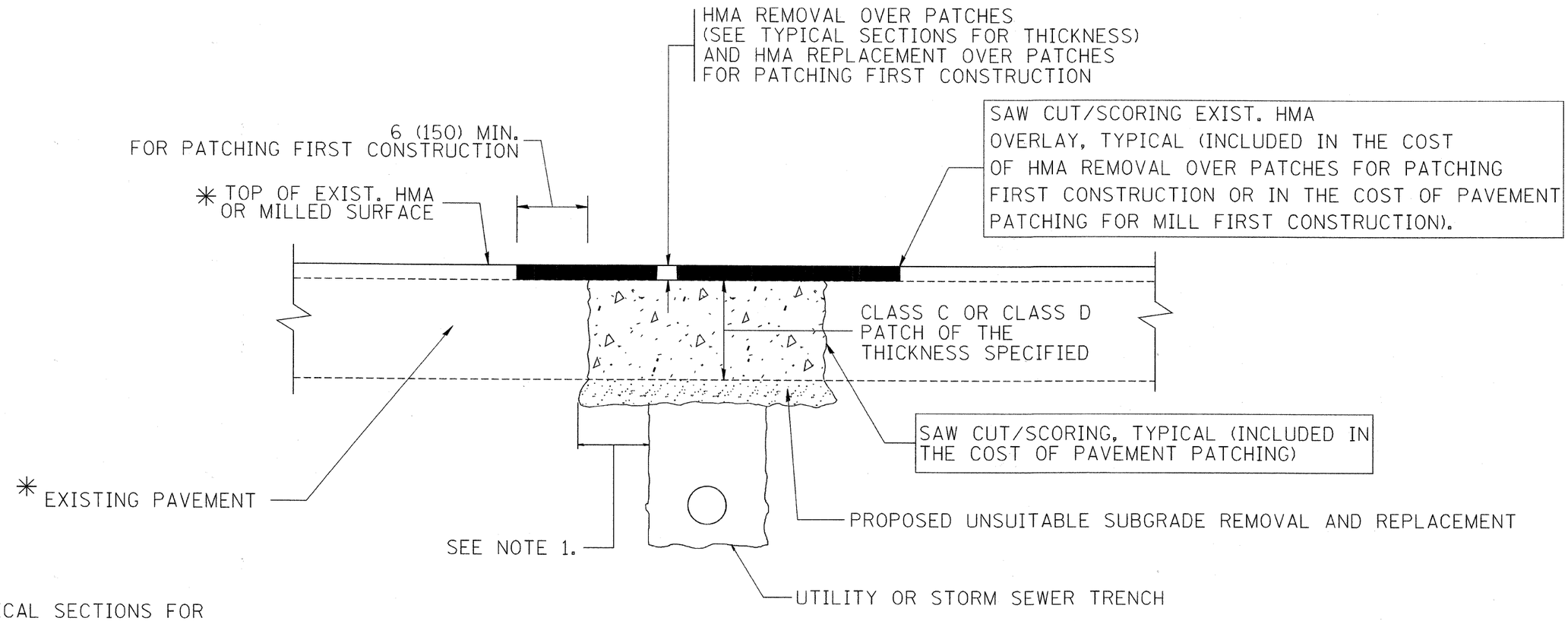
FILE NAME = W:\diststd\22x34\bd05.dgn	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 09-09-94
		DRAWN -	REVISED - R. SHAH 10-25-94
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - E. GOMEZ 08-28-00
	PLOT DATE = 1/4/2008	DATE - 05-14-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS FOR CONCRETE MEDIAN TYPE SB (DOWELLED)
CORRUGATED MEDIAN (MODIFIED)

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	153
	BD600-02 (BD-5)	CONTRACT NO. 63541		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

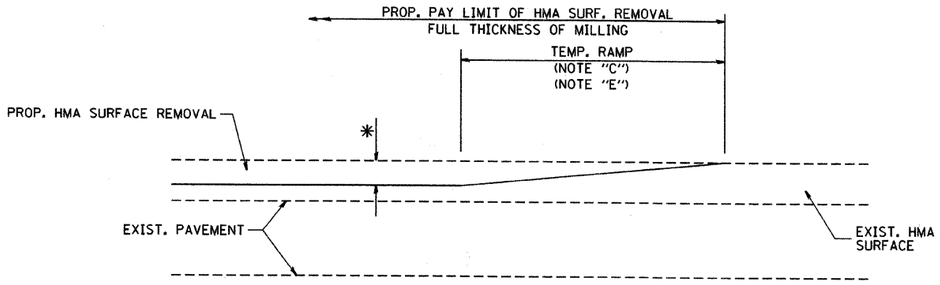
FILE NAME = c:\projects\diststd22x34\bd22.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98
		DRAWN -	REVISED - R. BORO 01-01-07
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - R. BORO 09-04-07
	PLOT DATE = 12/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

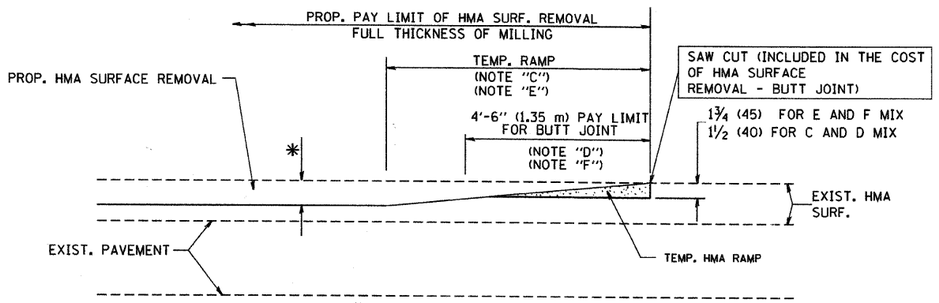
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	154
	BD400-04 (BD-22)	CONTRACT NO. 63541		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

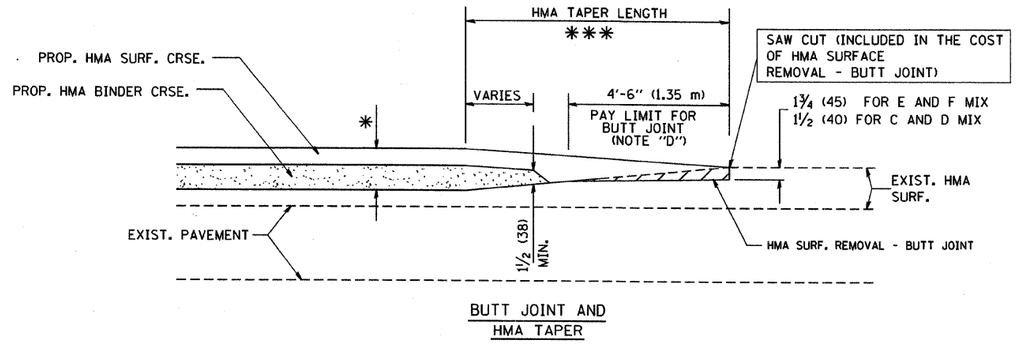


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

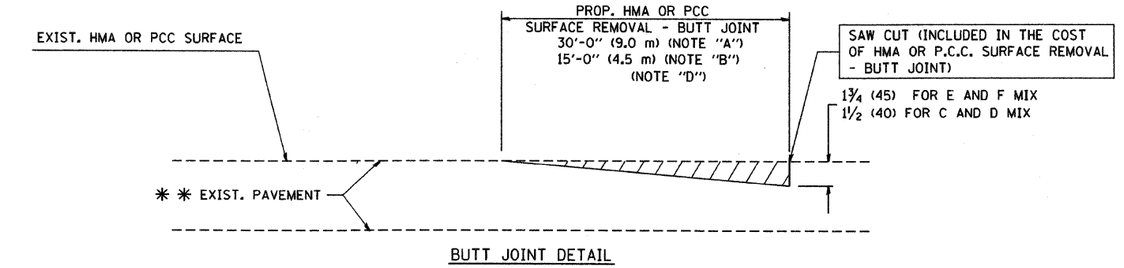
OPTION 2

TYPICAL TEMPORARY RAMP

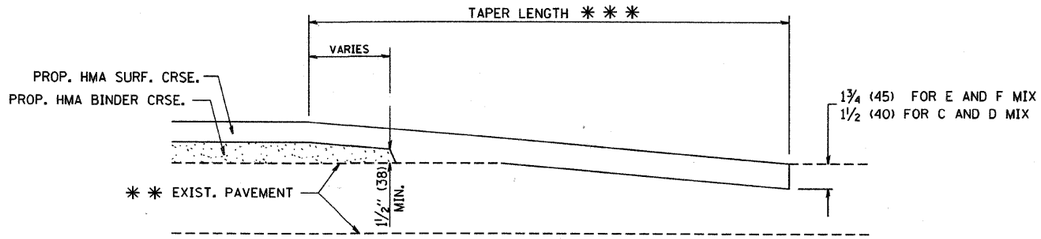


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

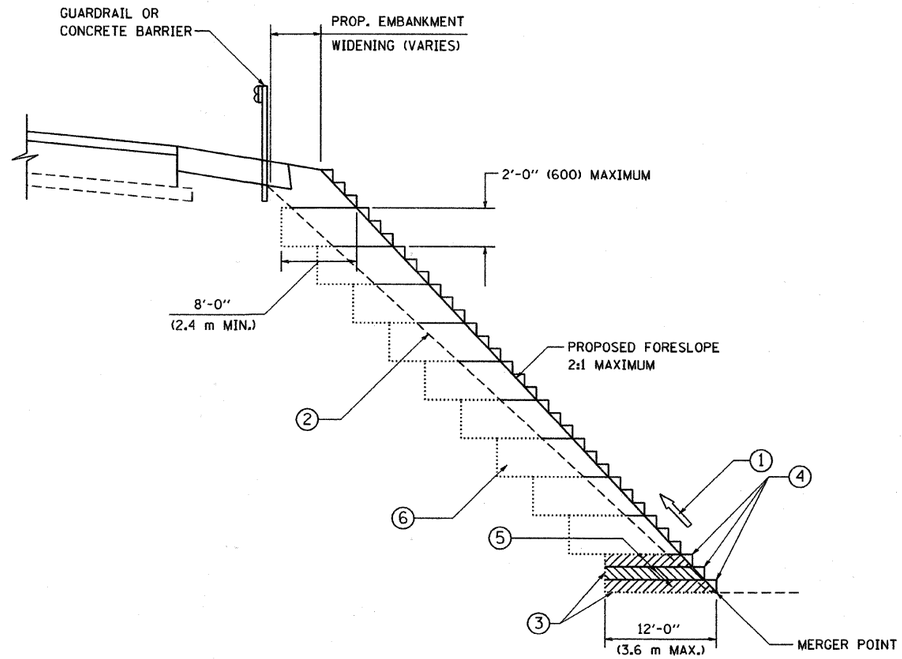
FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = geglianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	155
	BD400-05 BD32	CONTRACT NO. 63541		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TYPICAL BENCHING DETAIL FOR EMBANKMENT

NOTES:

1. CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
2. EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
3. BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
4. TRIM TO FINAL SLOPE.
5. EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
6. EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
7. SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

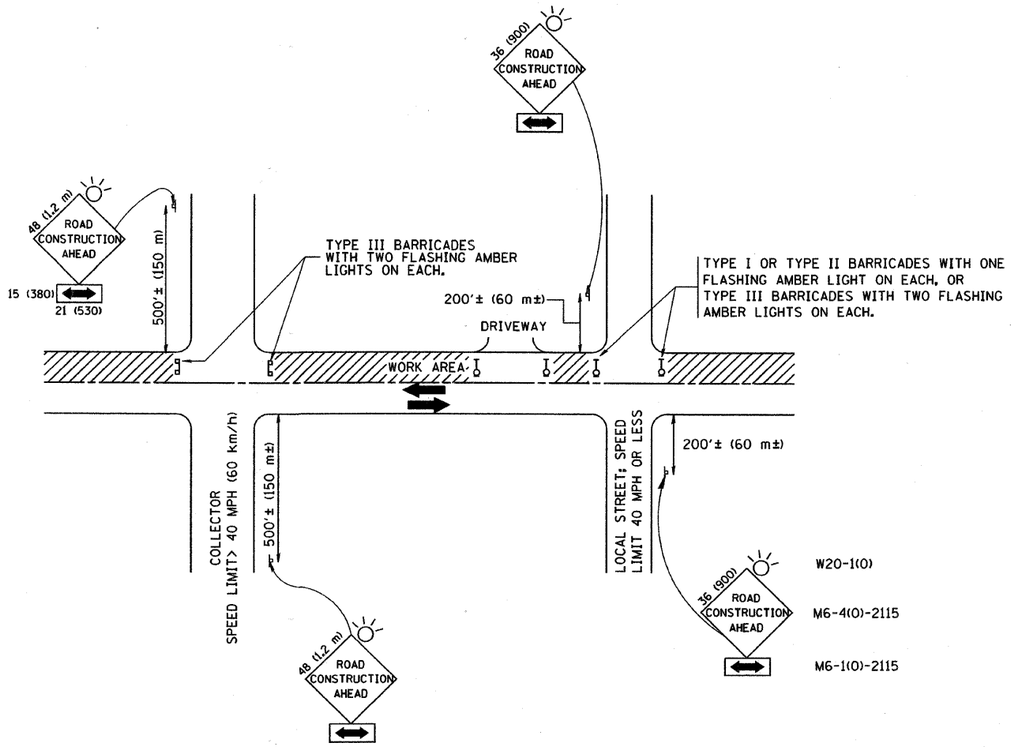
FILE NAME = W:\diststd\22x34\bd51.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED -
		DRAWN - CADD	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - S.E.B.	REVISED -
	PLOT DATE = 1/4/2008	DATE - 06-16-04	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BENCHING DETAIL
FOR EMBANKMENT WIDENING

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	156
	BD-51	CONTRACT NO. 63541		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

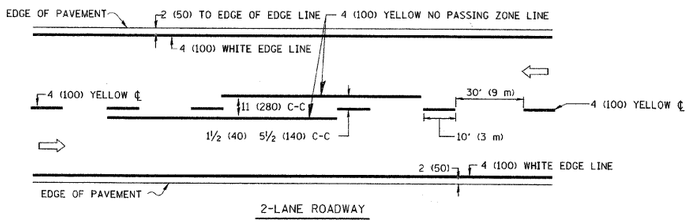
FILE NAME = W:\diststd\22x34\tc10.dgn	USER NAME = gegliarobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

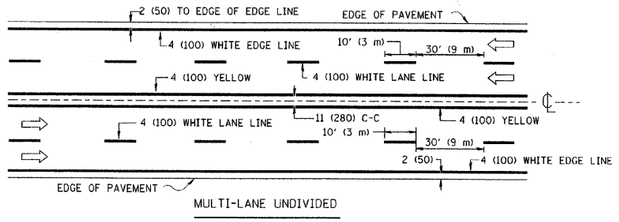
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

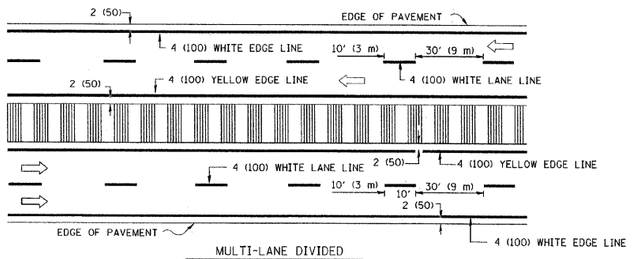
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	157
	TC-10	CONTRACT NO. 63541		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



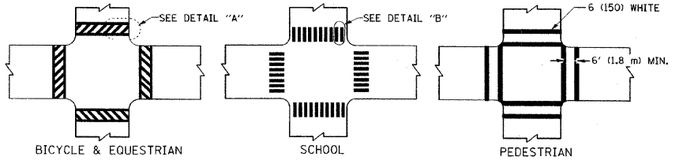
MULTI-LANE UNDIVIDED

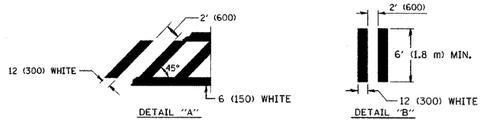


MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

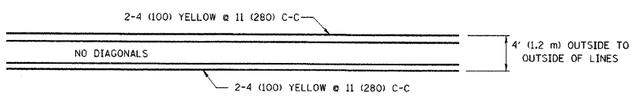
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

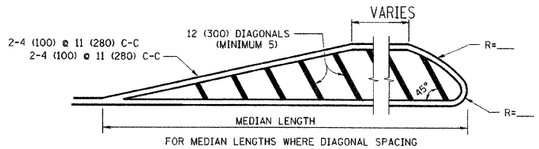




TYPICAL CROSSWALK MARKING



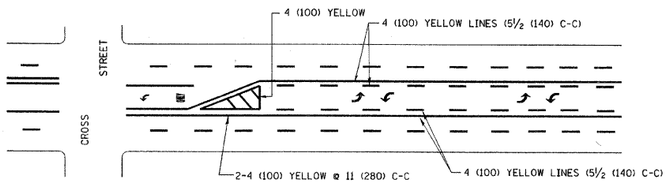
4' (1.2 m) WIDE MEDIANS ONLY



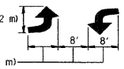
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

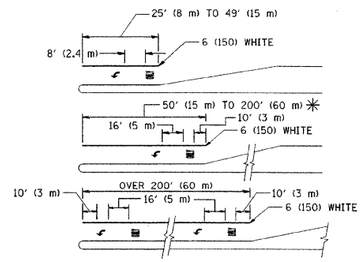


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

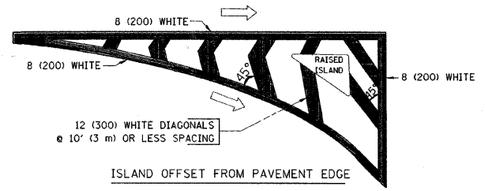


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m²)) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

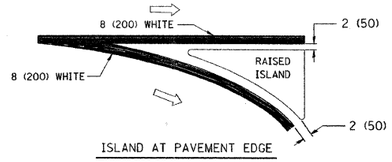
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

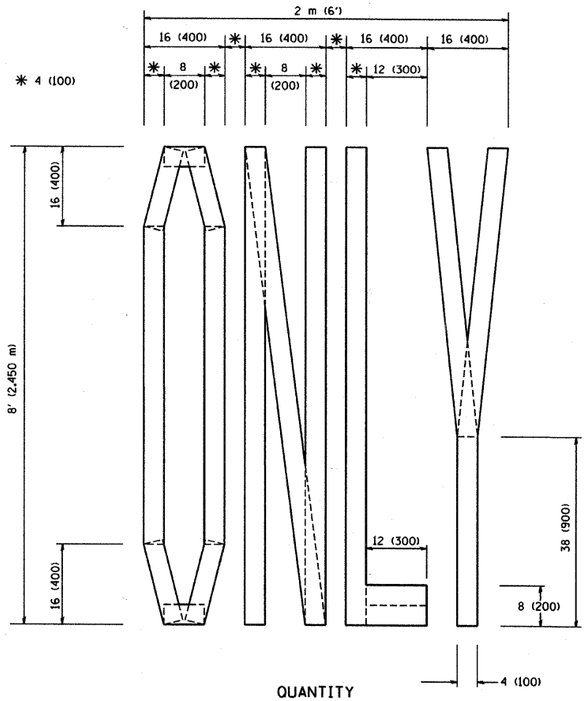
FILE NAME = c:\pw_work\pwidot\drivakosgn\d0108315\tc13.dgn	USER NAME = drivakosgn	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
		DRAWN -	REVISED -C. JUCIUS 09-09-09
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

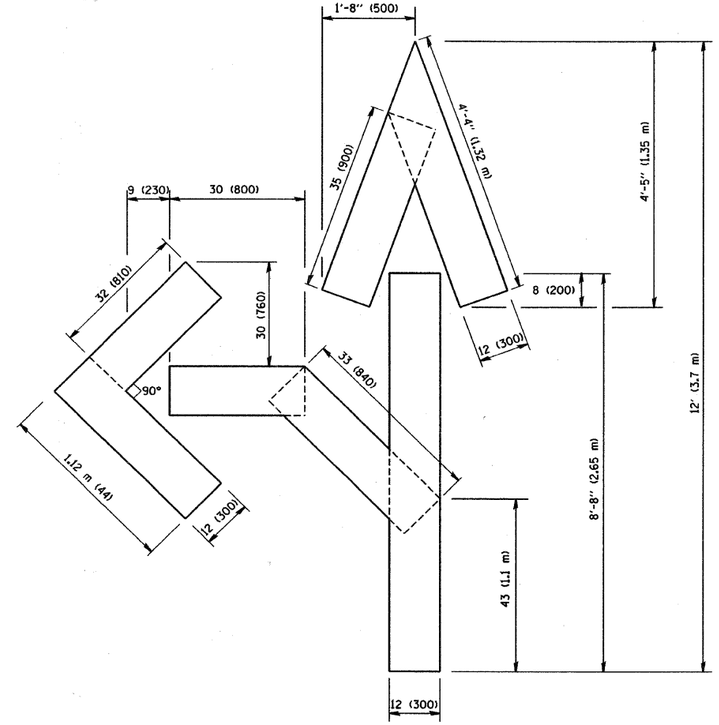
DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

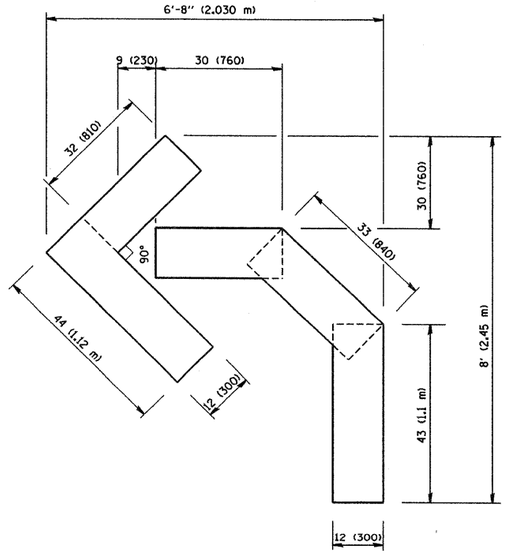
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	158
	TC-13	CONTRACT NO. 63541		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



QUANTITY
4 (100) LINE = 64.1 ft. (19.7 m)
21.1 sq. ft. (1.97 sq. m)



QUANTITY
4 (100) LINE = 82.5 ft. (25.3 m)
27.5 sq. ft. (2.53 sq. m)



QUANTITY
4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.39 sq. m)

All dimensions are in inches (millimeters) unless otherwise shown.

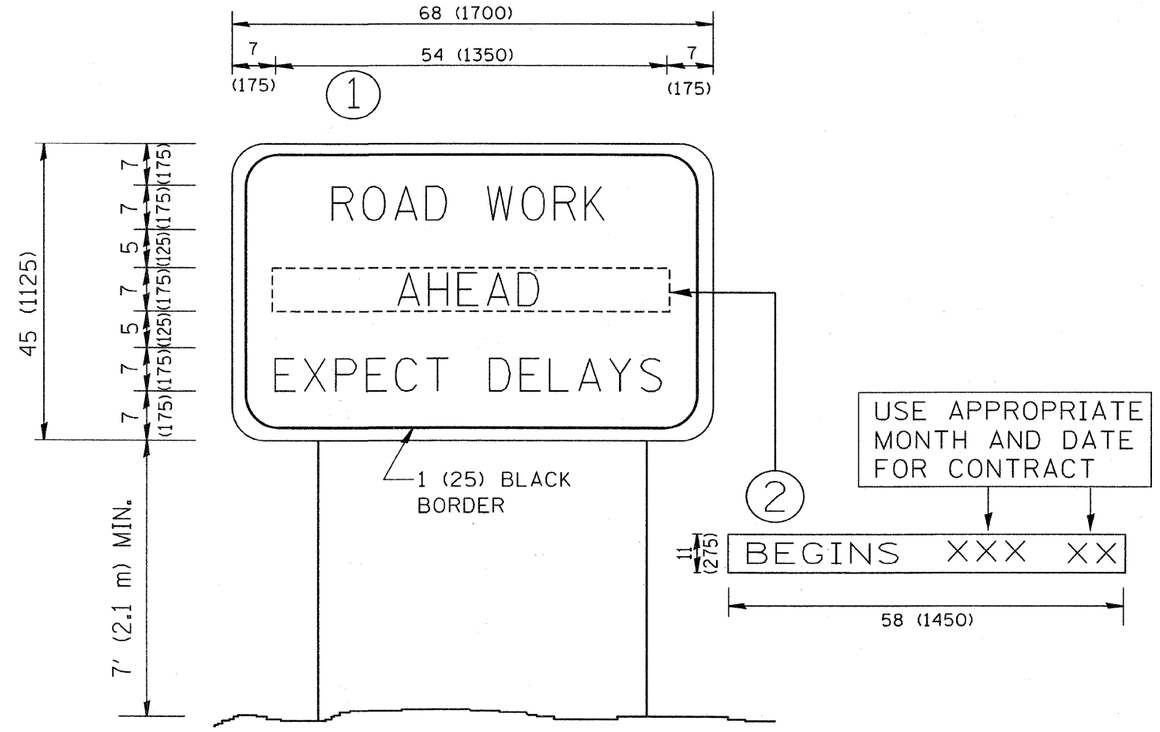
FILE NAME = W:\diststd\22x34\tc16.dgn	USER NAME = gaglionobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
		DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	159
	TC-16	CONTRACT NO. 63541		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

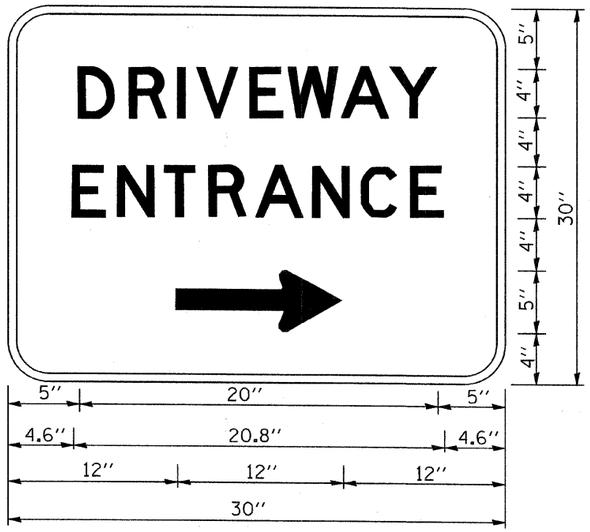
FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gaglionobt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	160
	TC-22	CONTRACT NO. 63541		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



3.0'' RADIUS, 0.5'' BORDER, WHITE ON GREEN; REFLECTORIZED
''DRIVEWAY'' D; ''ENTRANCE'' D; STANDARD ARROW CUSTOM 12.0'' x 5.0''

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM ''TEMPORARY INFORMATION SIGNING''.

FILE NAME = W:\diststd\22x34\tc26.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - C. JUCIUS 02-15-07
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY ENTRANCE SIGNING

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	161
	TC-26	CONTRACT NO. 63541		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.

2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.

3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.

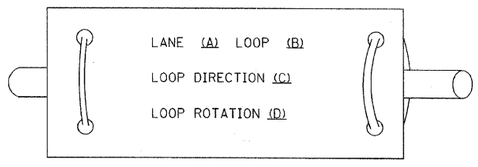
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.

6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.

7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

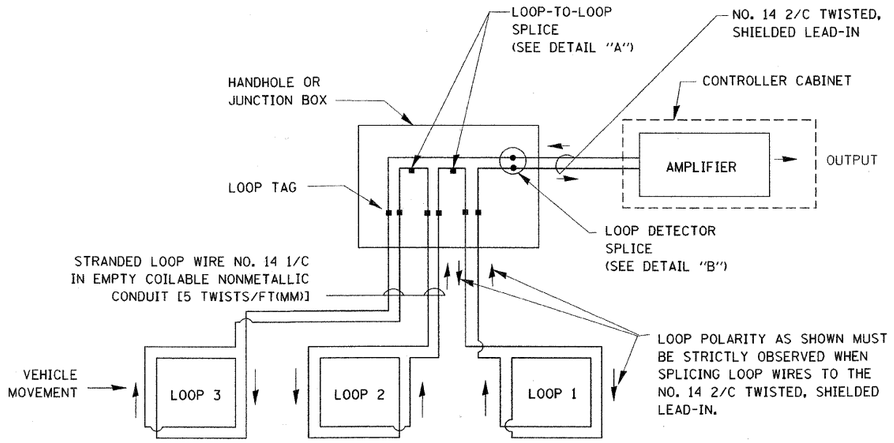


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

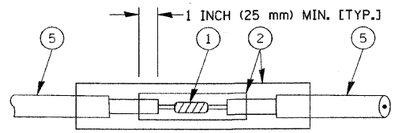
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

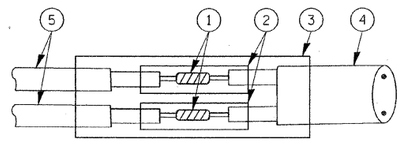


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

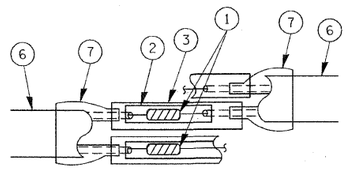


DETAIL "A"
LOOP-TO-LOOP SPLICE



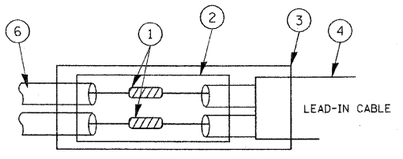
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

(1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

(6) PRE-FORMED LOOP

(7) XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

FILE NAME = c:\pw_work\PWIDOT\KANTHAPHIXAYBC\d0112641\traffic_legend_v7.dgn	USER NAME = kanthaphixaybc	DESIGNED - DAD	REVISED -
		DRAWN - BCK	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED - DAD	REVISED -
	PLOT DATE = 10/6/2009	DATE - 10/28/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

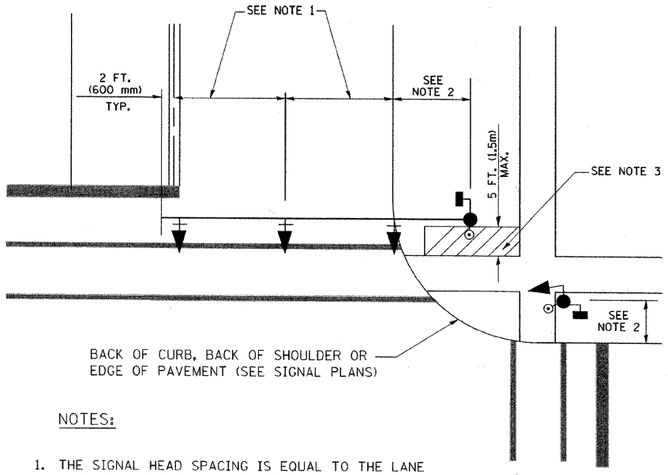
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 1 OF 6 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	162
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

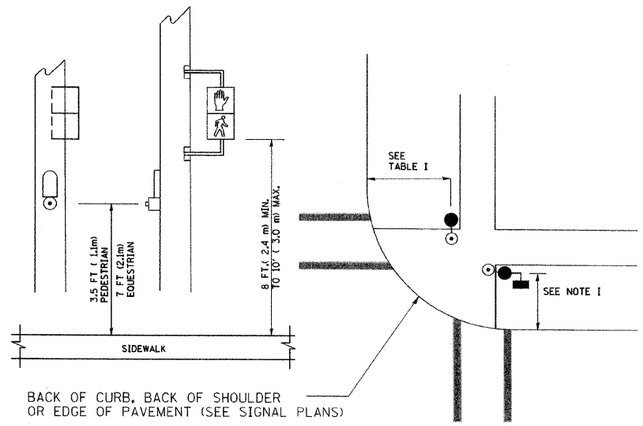
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

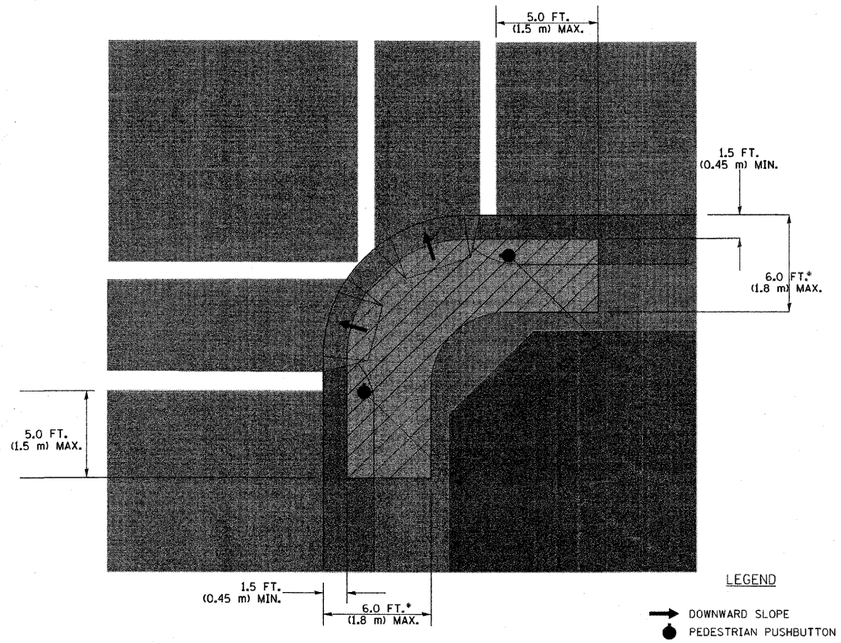
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- ** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

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		DRAWN - BCK	REVISED -
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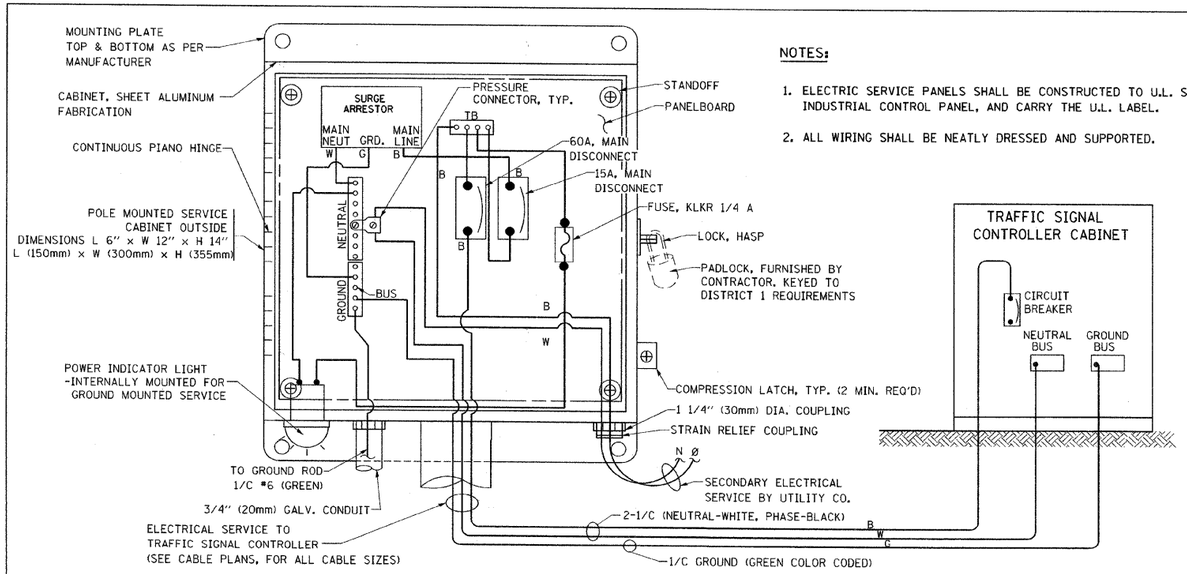
	PLOT DATE = 10/6/2009	DATE - 10/28/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 2 OF 6 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	163
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



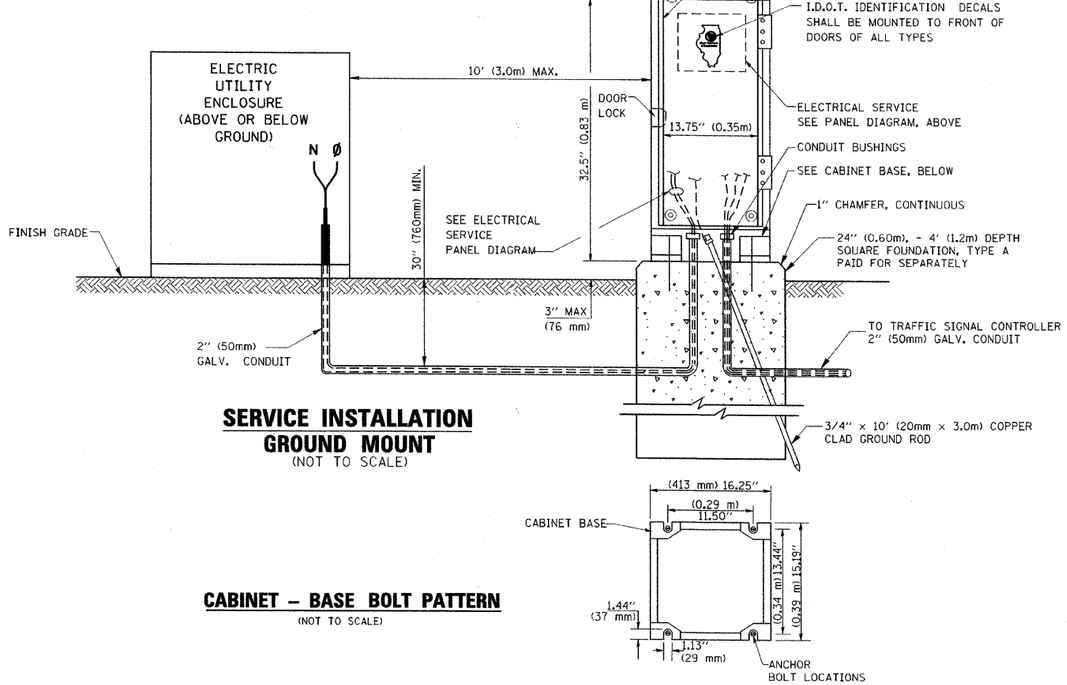
NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)

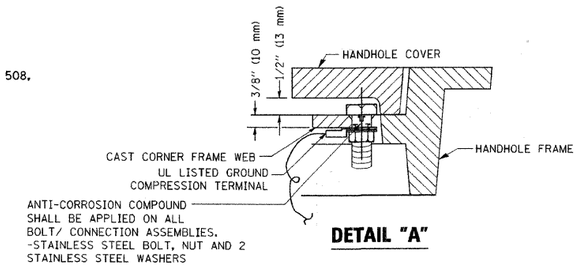


SERVICE INSTALLATION GROUND MOUNT

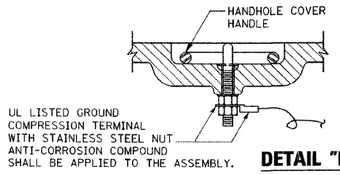
(NOT TO SCALE)

CABINET – BASE BOLT PATTERN

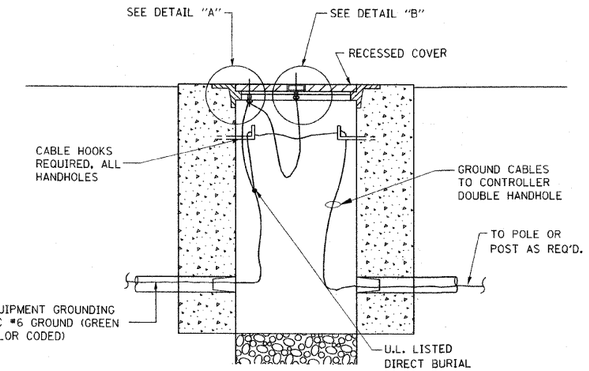
(NOT TO SCALE)



DETAIL "A"

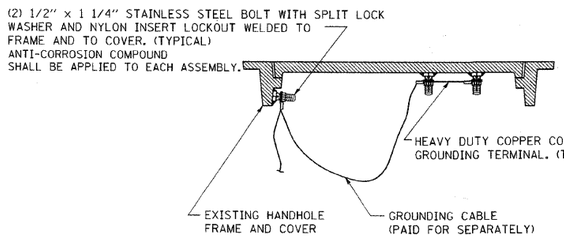


DETAIL "B"



HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



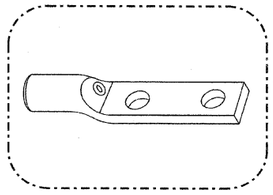
EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

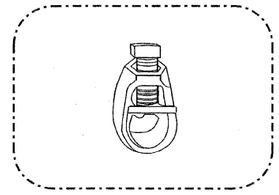
NOTES:

GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



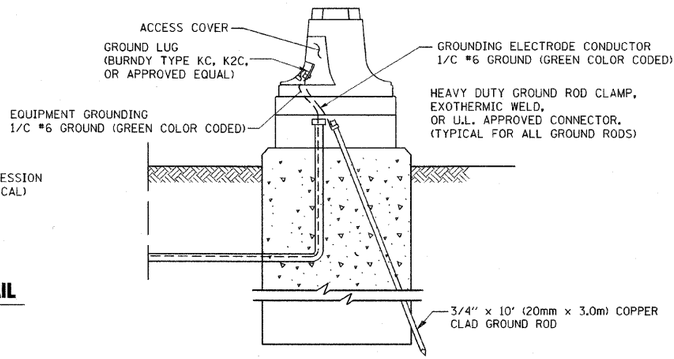
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



¾" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

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	PLOT DATE = 10/6/2009	DATE - 10/28/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 3 OF 6 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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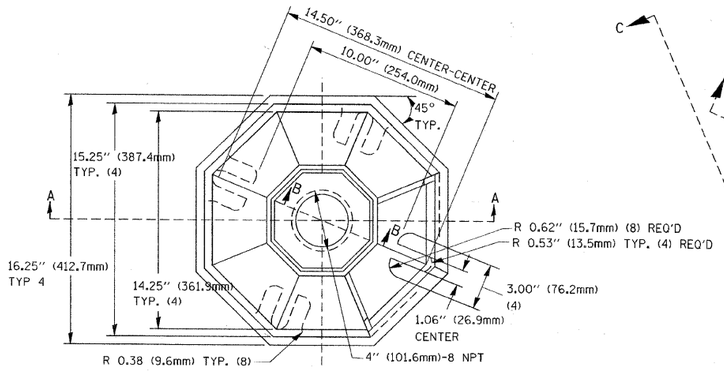
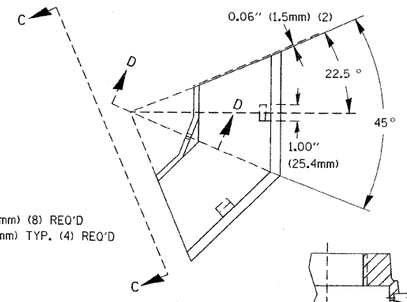
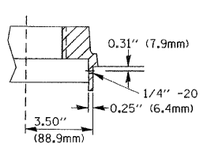
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

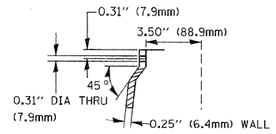


TOP VIEW

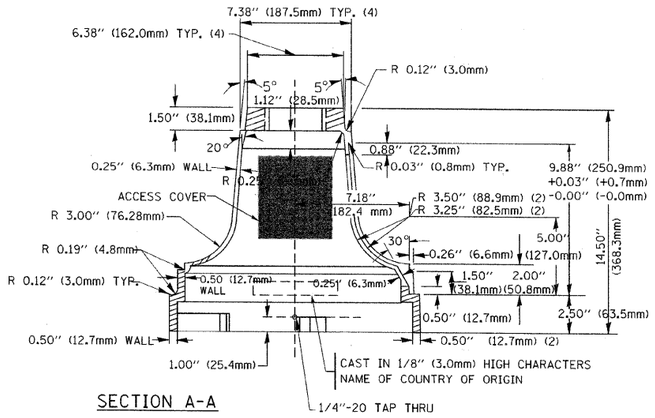




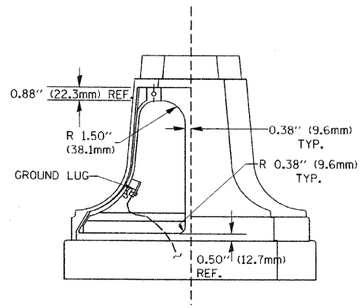
SECTION B-B



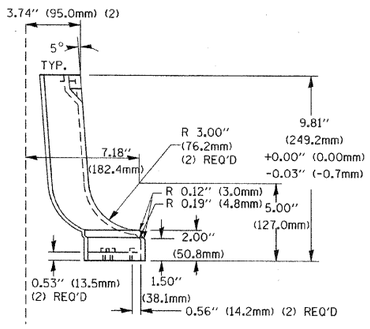
SECTION D-D



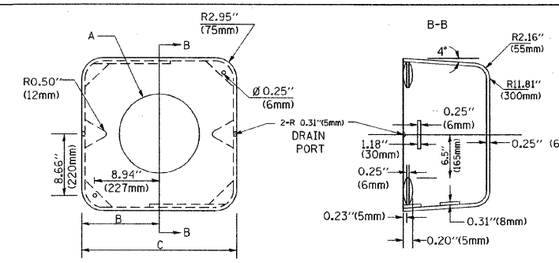
SECTION A-A



VIEW C-C



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



MATERIAL:
- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

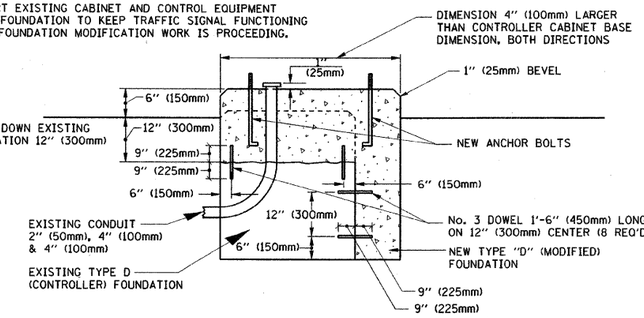
A	B	C	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

SHROUD

NOTES:

1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

NOTE:
SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION

POST CAP MOUNT

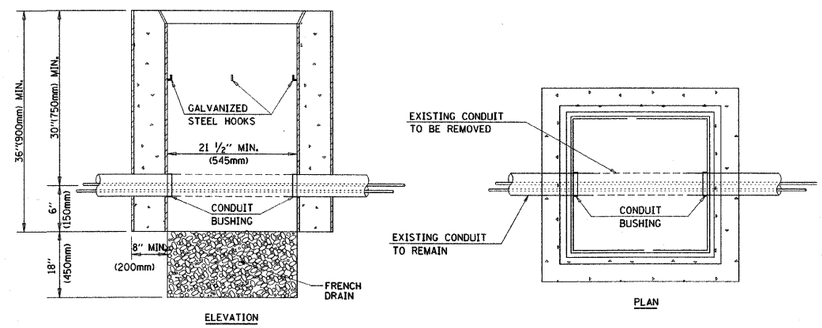
MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
   ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
   ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A ¾"(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

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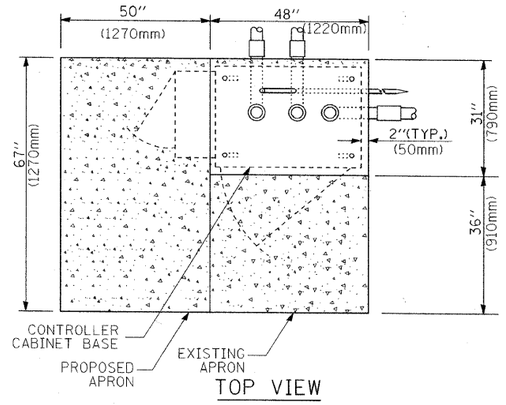
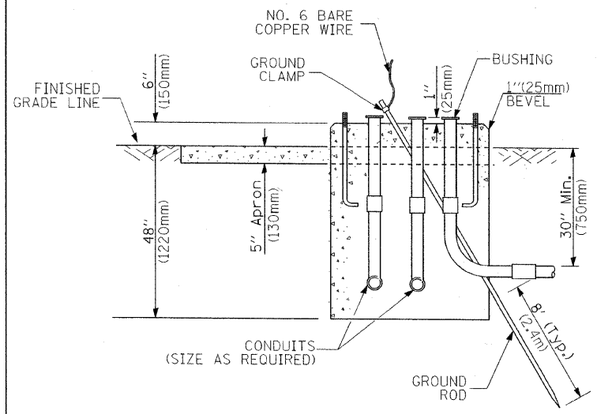
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

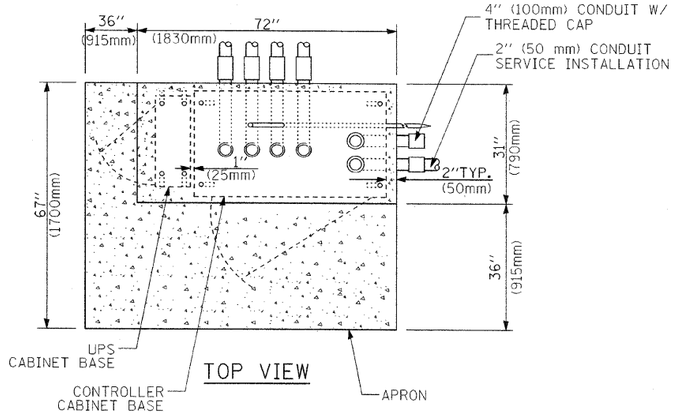
SCALE: | SHEET NO. 4 OF 6 SHEETS | STA. | TO STA.

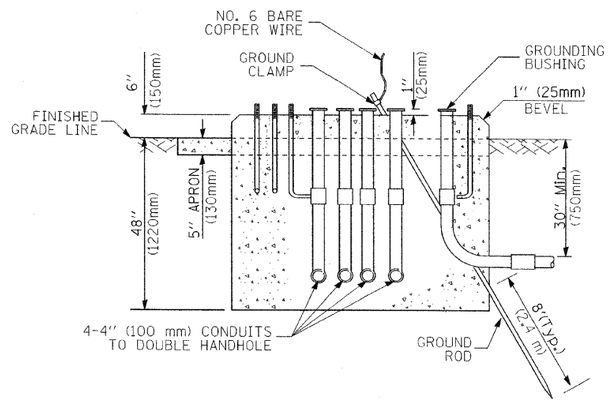
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	165
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



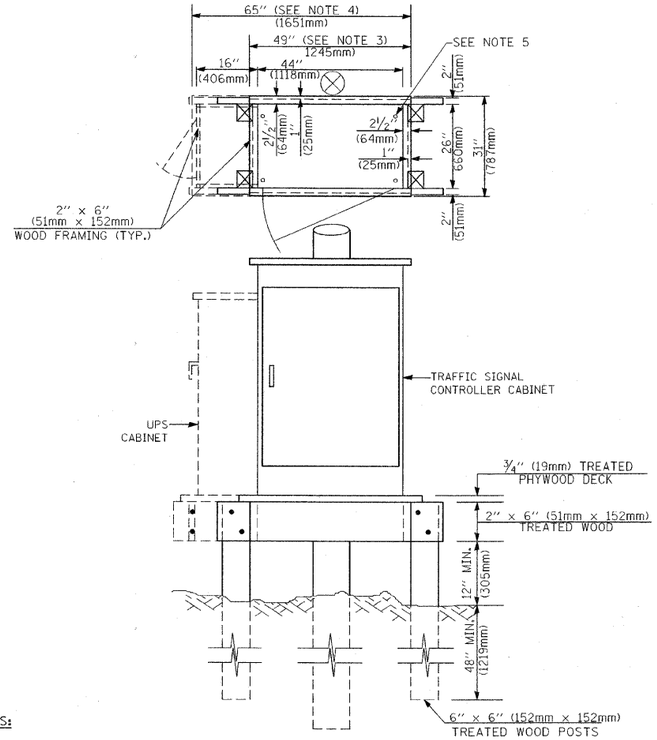


TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET





TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 5 OF 6 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	166
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET	R		
RAILROAD CONTROL CABINET		RR	RR
COMMUNICATIONS CABINET	R C.C	C.C	C.C
MASTER CONTROLLER		EMC	MC
MASTER MASTER CONTROLLER		EMMC	MMC
UNINTERRUPTIBLE POWER SUPPLY	R UPS	EUPS	UPS
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	R	P	P
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT	R T	P T	P T
STEEL MAST ARM ASSEMBLY AND POLE	R		
ALUMINUM MAST ARM ASSEMBLY AND POLE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA	R PTZ	PTZ	PTZ
SIGNAL POST	R		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	R		
GUY WIRE	R		
SIGNAL HEAD	R		
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			2
SIGNAL HEAD WITH BACKPLATE	R		
SIGNAL HEAD OPTICALLY PROGRAMMED	R "P"	"P"	"P"
FLASHER INSTALLATION (S DENOTES SOLAR POWER)	R "F"	"F"	"F"
PEDESTRIAN SIGNAL HEAD	R		
PEDESTRIAN PUSHBUTTON DETECTOR	R		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	APS	APS
ILLUMINATED SIGN "NO LEFT TURN"	R		
ILLUMINATED SIGN "NO RIGHT TURN"	R		
DETECTOR LOOP, TYPE I			
PREFORMED DETECTOR LOOP		P	P
MICROWAVE VEHICLE SENSOR	R M	M	M
VIDEO DETECTION CAMERA	R V	V	V
VIDEO DETECTION ZONE			
PAN, TILT, ZOOM CAMERA	R PTZ	PTZ	PTZ
WIRELESS DETECTOR SENSOR	R W	W	W
WIRELESS ACCESS POINT	R		

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR	R		
CONFIRMATION BEACON	R		
HANDHOLE	R		
HEAVY DUTY HANDHOLE	R H	H	H
DOUBLE HANDHOLE	R		
JUNCTION BOX	R		
GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	R		
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION		R	R
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G	
SIGNAL FACE		R Y G ←Y ←G	R Y G ←Y ←G
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD		R Y G ←Y ←G "P"	R Y G ←Y ←G "P"
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		DW W	
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		C D	C D
RADIO INTERCONNECT	R		
RADIO REPEATER	R ERR	ERR	RR
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		5	5
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		1	1

ITEM	REMOVAL	EXISTING	PROPOSED
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		I	I
COAXIAL CABLE		C	C
VENDOR CABLE FOR CAMERA		V	V
COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED		6	6
FIBER OPTIC CABLE NO. 62.5/125, MM12F		12F	
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F		24F	24F
FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		C	C
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF		
STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED	RMF		
SIGNAL POST AND FOUNDATION TO BE REMOVED	RMF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
SAMPLING (SYSTEM) DETECTOR		S	S
EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		P	
EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PP	
PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS
PREFORMED SAMPLING (SYSTEM) DETECTOR		PS	PS

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET	RR	RR
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

FILE NAME = c:\pw_work\PWIDOT\KANTHAPHIXAYBC\d0112614\traffic_legend_v7.dgn	USER NAME = kanthaphixaybc	DESIGNED - DAG/BCK	REVISED -
		DRAWN - BCK	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED - DAD	REVISED -
	PLOT DATE = 10/6/2009	DATE - 10/28/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

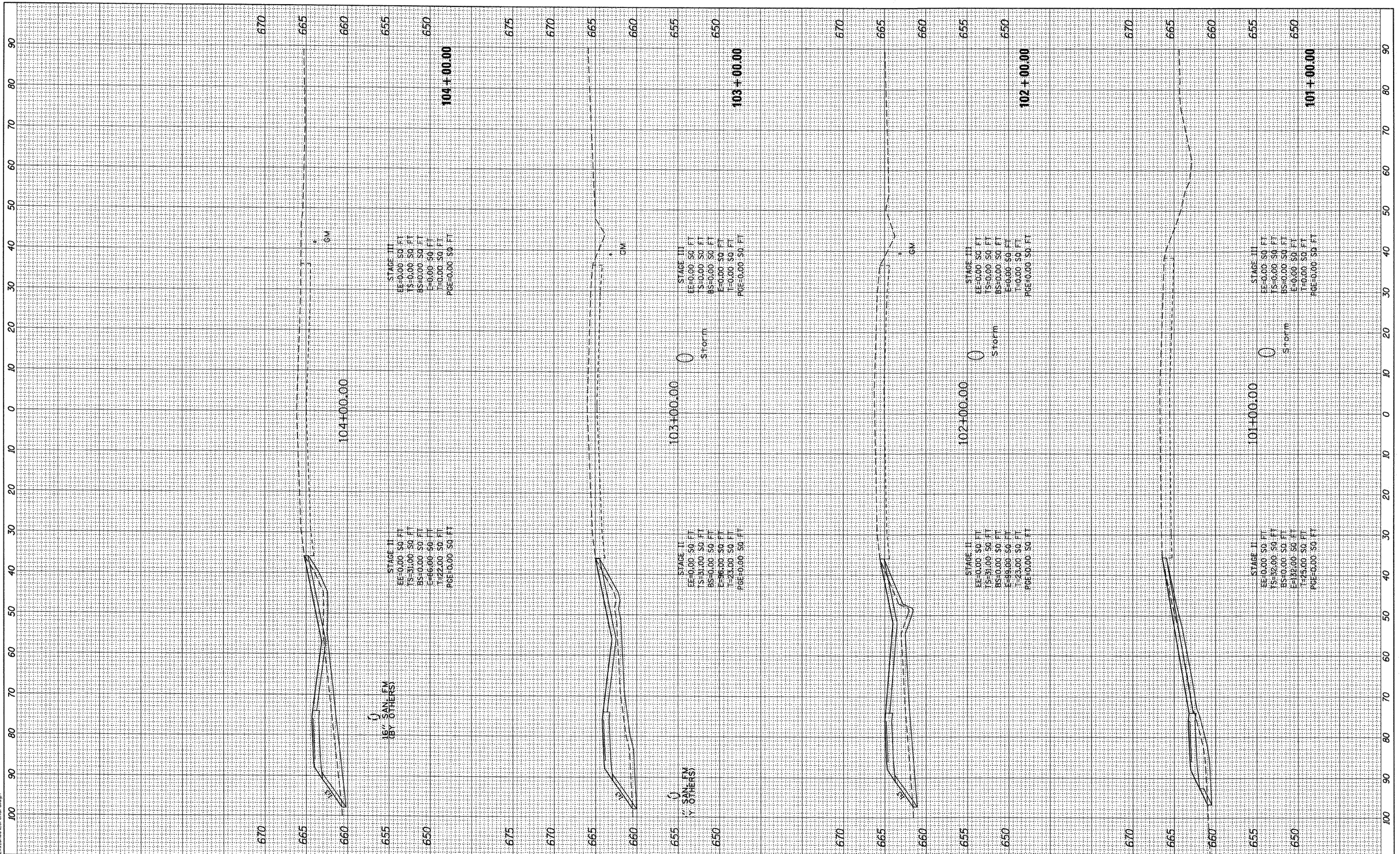
DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 6 OF 6 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	167
		CONTRACT NO. 63541		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLAN	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	ALIGNMENT CHECKED			
NO.	ALL DRAWING CHECKED			
	CADD FILE NAME			

PROFILE	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	GRADES CHECKED			
NO.	ALL DRAWING CHECKED			
	STRUCTURE NOTATNS CHKD			



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12/17/2010
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Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED	- MK	REVISED	-
DRAWN	- DW	REVISED	-
CHECKED	- MH	REVISED	-
DATE	- 12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 1 OF 47 SHEETS | STA. 101+00.00 TO STA. 104+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	168
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

PLAN		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	CROSS SECTIONS CHECKED		
	ALIGNMENT, PT. OF WAY CHECKED		
	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	PROFILE CHECKED		
	FINAL NOTED		
	STRUCTURE NOTATIONS CHKD		

107+00.00

666.80

STAGE III
EE=45.00 SQ FT
TS=5.00 SQ FT
BS=0.00 SQ FT
E=2.00 SQ FT
T=3.00 SQ FT
P&E=0.00 SQ FT

STAGE II
EE=64.00 SQ FT
TS=29.00 SQ FT
BS=0.00 SQ FT
E=4.00 SQ FT
T=15.00 SQ FT
P&E=0.00 SQ FT

106+00.00

666.62

STAGE III
EE=31.00 SQ FT
TS=4.00 SQ FT
BS=0.00 SQ FT
E=3.00 SQ FT
T=2.00 SQ FT
P&E=0.00 SQ FT

STAGE II
EE=37.00 SQ FT
TS=29.00 SQ FT
BS=0.00 SQ FT
E=31.00 SQ FT
T=17.00 SQ FT
P&E=0.00 SQ FT

105+00.00

666.45

STAGE III
EE=35.00 SQ FT
TS=4.00 SQ FT
BS=0.00 SQ FT
E=2.00 SQ FT
T=3.00 SQ FT
P&E=0.00 SQ FT

STAGE II
EE=44.00 SQ FT
TS=27.00 SQ FT
BS=0.00 SQ FT
E=5.00 SQ FT
T=19.00 SQ FT
P&E=0.00 SQ FT

104+89.01

STAGE II
EE=12.00 SQ FT
TS=25.00 SQ FT
BS=0.00 SQ FT
E=6.00 SQ FT
T=17.00 SQ FT
P&E=0.00 SQ FT

12" STORM

16" SAN. FM (BY OTHERS)

GM

18.0626 / / IN.
Jennifer
12/17/2010
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200 West Front Street
Wheaton, Il 60187

DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

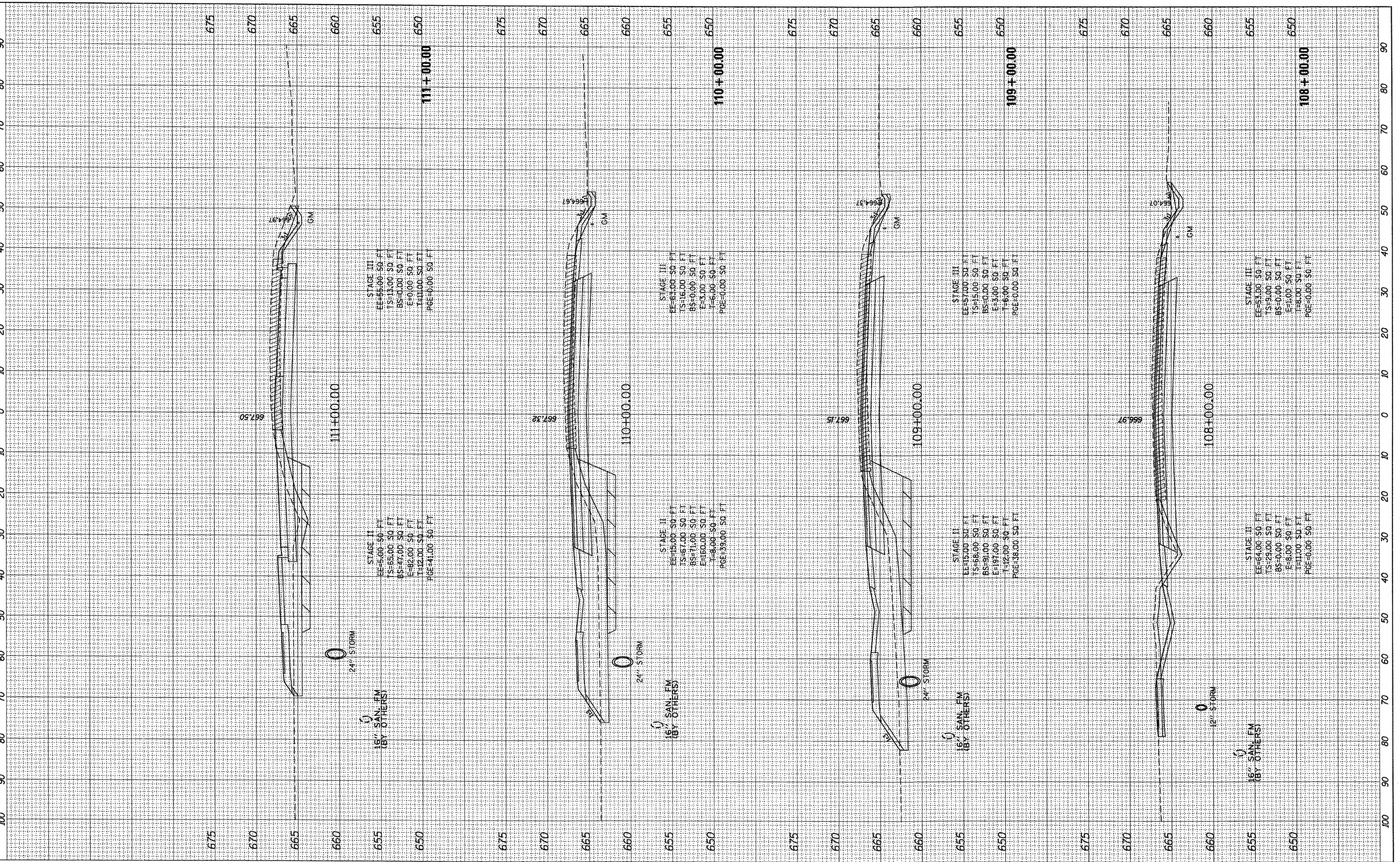
ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 2 OF 47 SHEETS | STA. 104+89.01 TO STA. 107+00.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	169
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

PLAN	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	ALIGNMENT CHECKED			
NO.____	RT. OF WAY CHECKED			
	CADD FILE NAME			

PROFILE	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	ALIGNMENT CHECKED			
NO.____	ENG. NOTES			
	STRUCTURE NOTATNS CHKD			



DESIGNED - MK	REVISED -	**KANE COUNTY**	**ORCHARD ROAD CROSS SECTIONS**
DRAWN - DW	REVISED -	**DIVISION OF TRANSPORTATION**	
CHECKED - MH	REVISED -	**ORCHARD ROAD RECONSTRUCTION**	SCALE: 1" = 10' | SHEET NO. 3 OF 47 SHEETS | STA. 108+00.00 TO STA. 111+00.00
DATE - 12/20/2010	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	170
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

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PLAN	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	ALIGNMENT CHECKED			
NO.____	RT. OF WAY CHECKED			
	PASS FILE NAME			

PROFILE	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	GRADES CHECKED			
NO.____	BASIS NOTED			
	STRUCTURE NOTATNS CHKD			

114+00.00

STAGE III
EE=50.00 SQ FT
TS=21.00 SQ FT
BS=0.00 SQ FT
E=122.00 SQ FT
T=8.00 SQ FT
POE=0.00 SQ FT

STAGE II
EE=4.00 SQ FT
TS=63.00 SQ FT
BS=0.00 SQ FT
E=86.00 SQ FT
T=13.00 SQ FT
POE=0.00 SQ FT

24" STORM

16" SAN. FM (BY OTHERS)

668.40

113+00.00

STAGE III
EE=50.00 SQ FT
TS=17.00 SQ FT
BS=0.00 SQ FT
E=111.00 SQ FT
T=8.00 SQ FT
POE=0.00 SQ FT

STAGE II
EE=3.00 SQ FT
TS=63.00 SQ FT
BS=57.00 SQ FT
E=119.00 SQ FT
T=13.00 SQ FT
POE=40.00 SQ FT

24" STORM

16" SAN. FM (BY OTHERS)

668.10

112+00.00

STAGE III
EE=50.00 SQ FT
TS=18.00 SQ FT
BS=0.00 SQ FT
E=8.00 SQ FT
T=10.00 SQ FT
POE=0.00 SQ FT

STAGE II
EE=4.00 SQ FT
TS=68.00 SQ FT
BS=53.00 SQ FT
E=108.00 SQ FT
T=13.00 SQ FT
POE=40.00 SQ FT

24" STORM

16" SAN. FM (BY OTHERS)

667.80

665.27

111+22.39

STAGE III
EE=54.00 SQ FT
TS=19.00 SQ FT
BS=0.00 SQ FT
E=6.00 SQ FT
T=10.00 SQ FT
POE=0.00 SQ FT

STAGE II
EE=5.00 SQ FT
TS=71.00 SQ FT
BS=51.00 SQ FT
E=86.00 SQ FT
T=9.00 SQ FT
POE=40.00 SQ FT

24" STORM

16" SAN. FM (BY OTHERS)

667.57

665.04

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12/17/2010
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200 West Front Street
Wheaton, Il 60187

DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

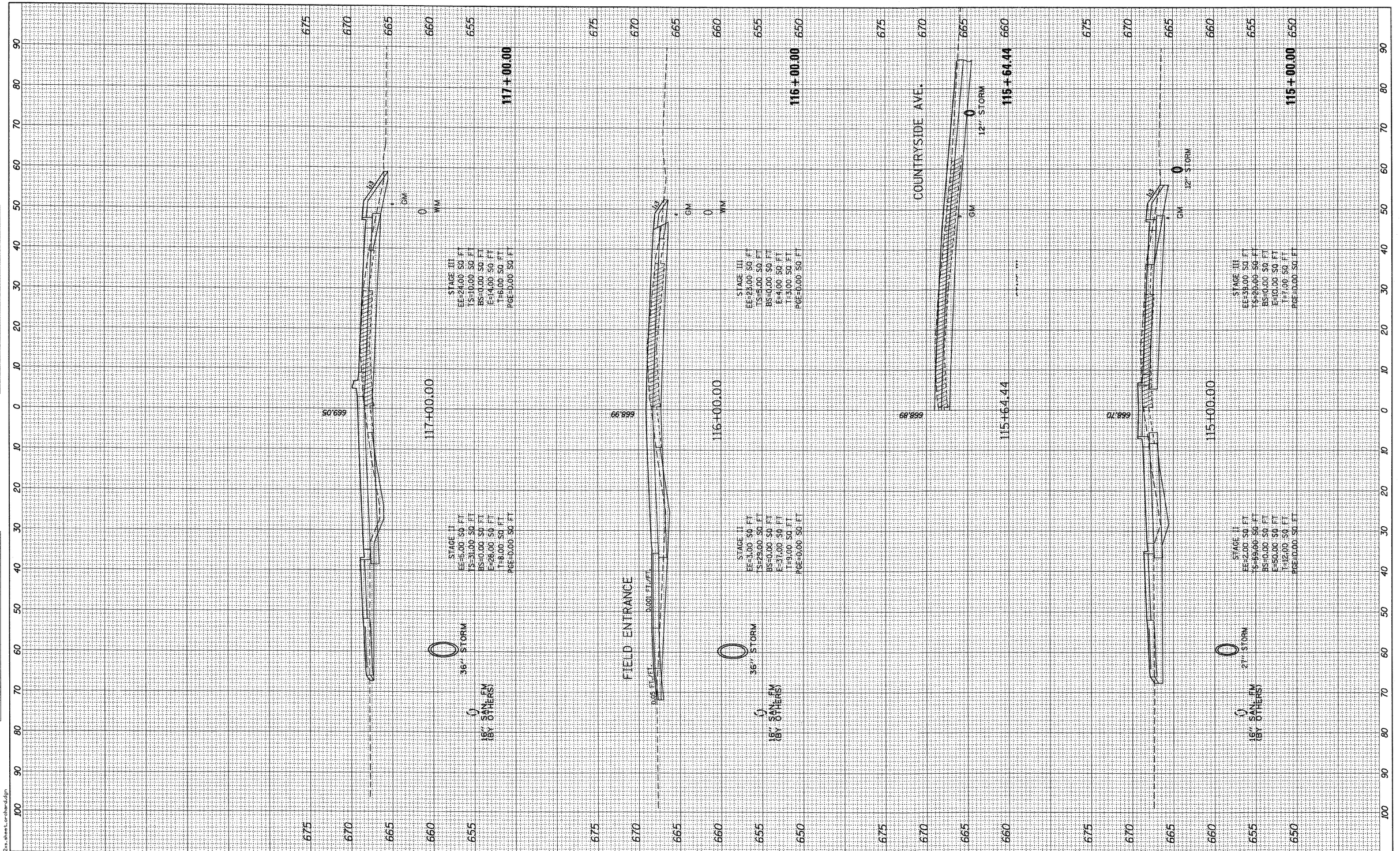
ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 4 OF 47 SHEETS | STA. 111+22.39 TO STA. 114+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	171
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

PLAN	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	DRAWN BY / CHECKED		
NO.____	ALIGNMENT / GRADE		
	RT. OF WAY CHECKED		
	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	DRAWN BY		
NO.____	CHECKED		
	BM. NOTED		
	STRUCTURE NOTATNS CHKD		



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200 West Front Street
Wheaton, Il 60187

DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

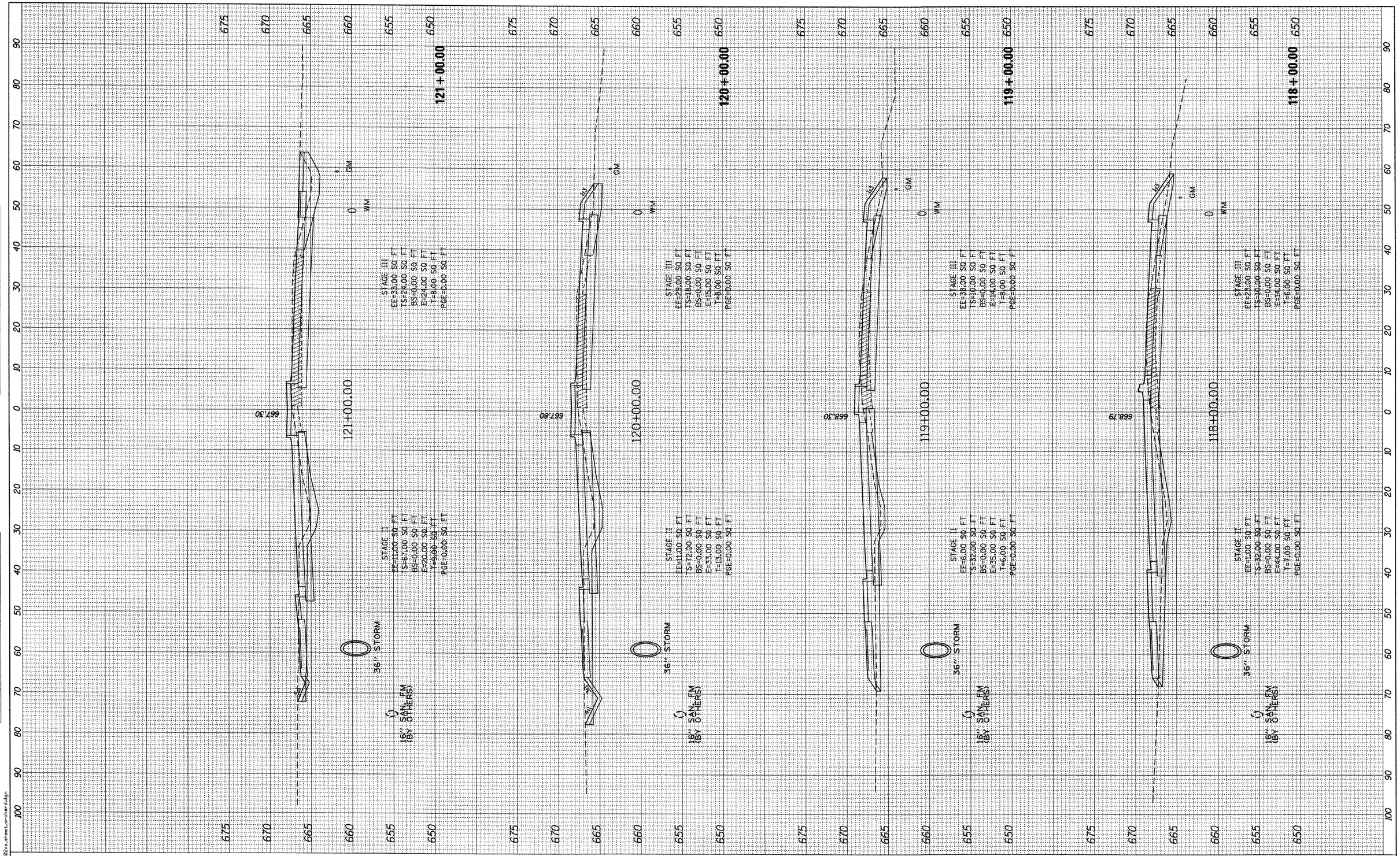
ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 5 OF 47 SHEETS | STA. 115+00.00 TO STA. 117+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	172
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

PLAN	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	ALIGNMENT CHECKED			
NO. _____	R.O.W. CHECKED			
	ROAD FILE NAME			

PROFILE	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	GRADES CHECKED			
NO. _____	S.M. NOTED			
	STRUCTURE NOTATNS CHKD			



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200 West Front Street
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DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 6 OF 47 SHEETS | STA. 118+00.00 TO STA. 121+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	173
		CONTRACT NO. 63541		
	ILLINOIS FED. AID PROJECT			

PLAN	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	DRAWN / CHECKED		
NO.____	R/W, PROPERTY LINES		
	ADD'L NOTED		
	FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	DRAWN / CHECKED		
NO.____	R/W, PROPERTY LINES		
	STRUCTURE NO'S/MS CHKD		

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200 West Front Street
Wheaton, Il 60187

DESIGNED - MK		REVISED -
DRAWN - DW		REVISED -
CHECKED - MH		REVISED -
DATE - 12/20/2010		REVISED -

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

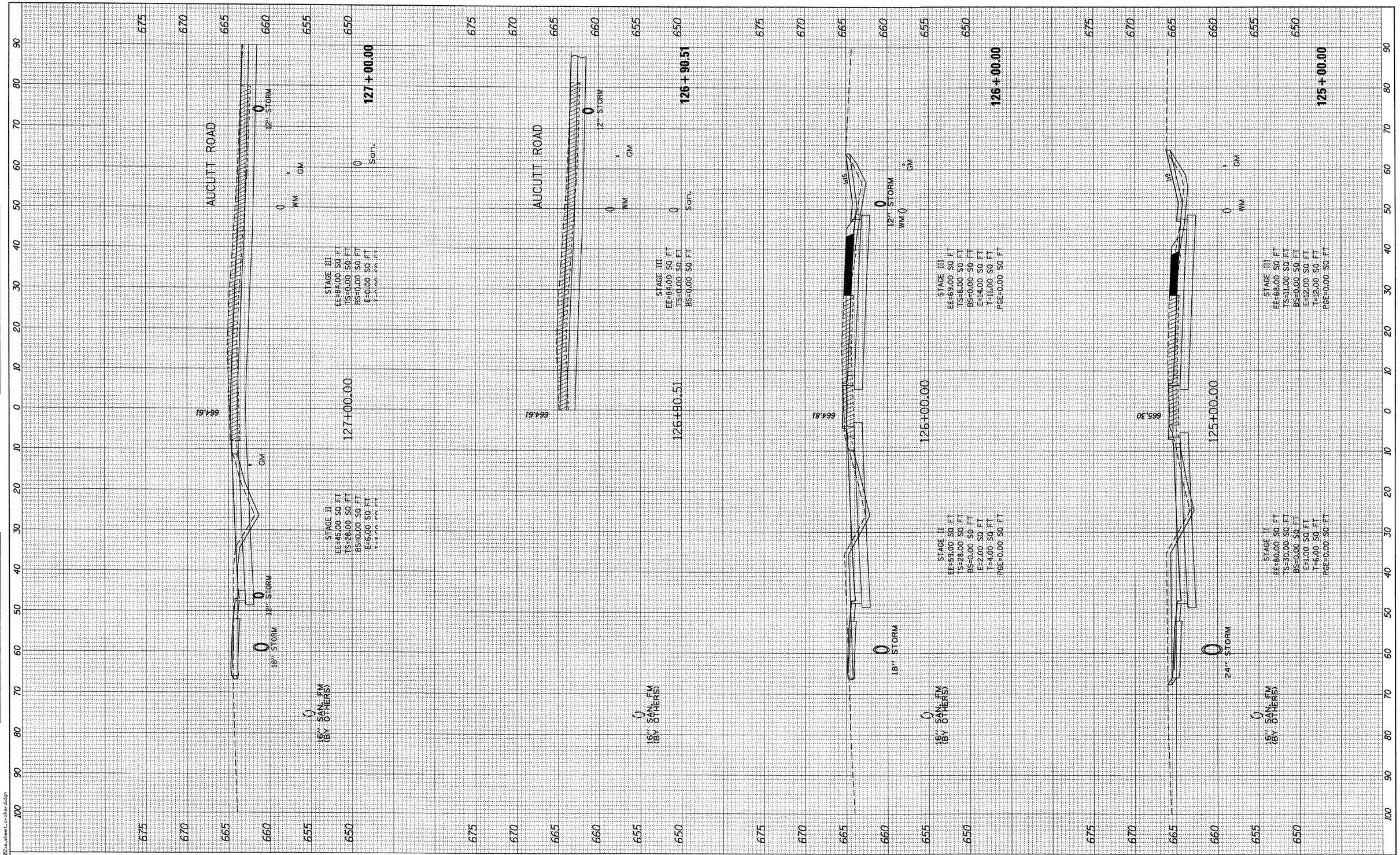
ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 7 OF 47 SHEETS | STA. 121+84.37 TO STA. 124+00.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	174
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

PLAN	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	GRADES CHECKED			
NO.	ALIGNMENT CHECKED			
	RT. OF WAY CHECKED			
	CADD FILE NAME			

PROFILE	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	GRADES CHECKED			
NO.	ALIGNMENT CHECKED			
	STRUCTURE NO(S)/RTE NO(S) CHKD			



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200 West Front Street
Wheaton, Il 60187

DESIGNED	- MK	REVISED	-
DRAWN	- DW	REVISED	-
CHECKED	- MH	REVISED	-
DATE	- 12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

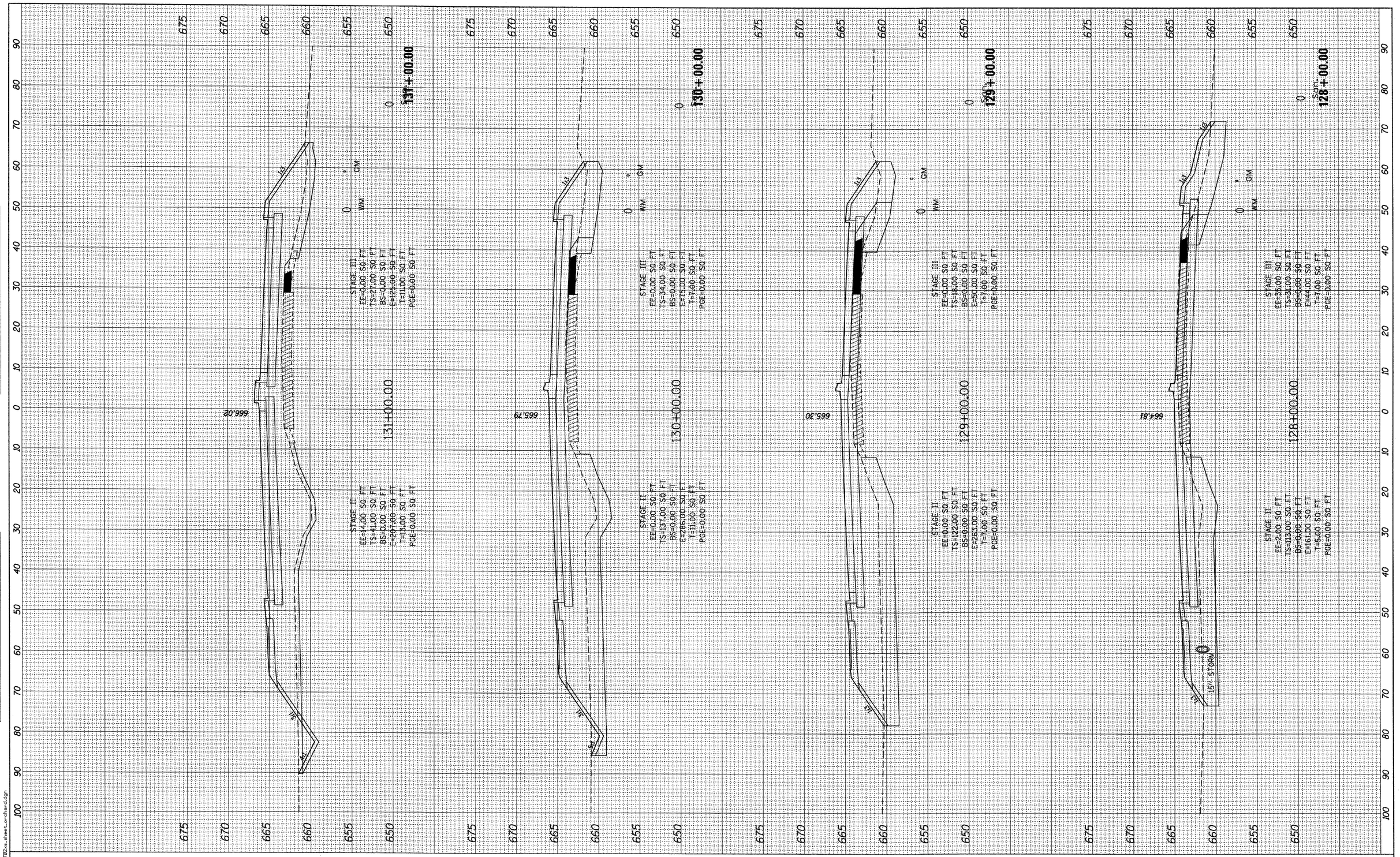
ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 8 OF 32 SHEETS | STA. 125+00.00 TO STA. 127+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	175
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

PLAN	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	ALIGNMENT CHECKED			
NO.____	RT. OF WAY CHECKED			
	CADD FILE NAME			

PROFILE	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	GRADES CHECKED			
NO.____	STRUCTURE NOTATNS CHKD			



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Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED	- MK	REVISED	-
DRAWN	- DW	REVISED	-
CHECKED	- MH	REVISED	-
DATE	- 12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

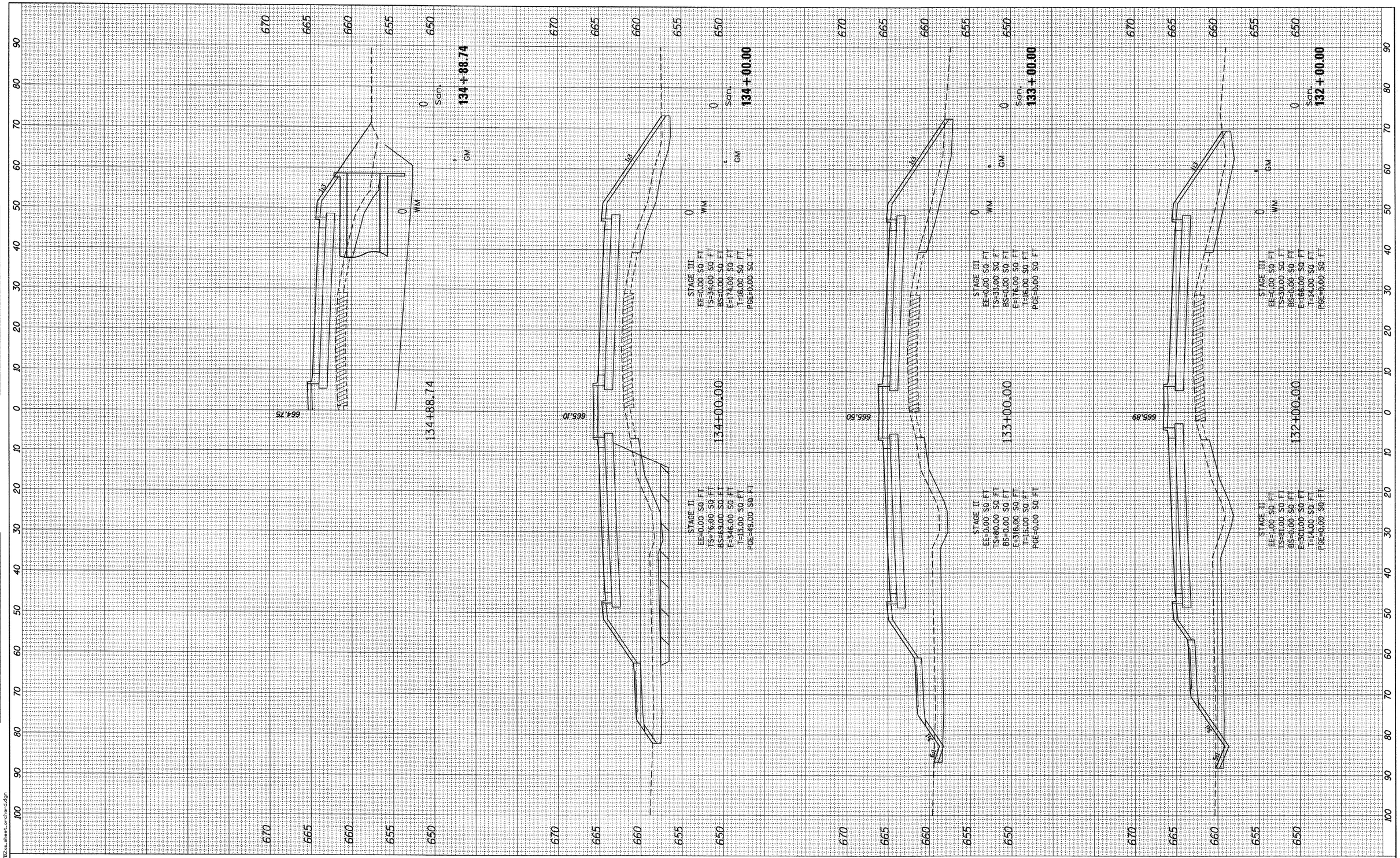
ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 9 OF 33 SHEETS | STA. 128+00.00 TO STA. 131+00.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	176
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

PLAN	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	CHECKED			
NO.	R/W, NOTED			
	CADD FILE NAME			

PROFILE	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	CHECKED			
NO.	R/W, NOTED			
	STRUCTURE NOTATNS CHKD			



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Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 10 OF 47 SHEETS | STA. 132+00.00 TO STA. 134+88.74

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	177
		CONTRACT NO. 63541		
	ILLINOIS FED. AID PROJECT			

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PLAN	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	DRAWING CHECKED			
NO.____	PT. OF WAY CHECKED			
	CADD FILE NAME			

PROFILE	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	DRAWING CHECKED			
NO.____	QUANTITIES			
	STRUCTURE NO'S/ATR'S ORKO			

136+54.44

664.35

15" STORM

STAGE III
EE=0.00 SQ FT
TS=32.00 SQ FT
BS=0.00 SQ FT
E=150.00 SQ FT
T=15.00 SQ FT
POE=0.00 SQ FT

STAGE II
EE=270.00 SQ FT
TS=216.00 SQ FT
BS=0.00 SQ FT
E=401.00 SQ FT
T=31.00 SQ FT
POE=0.00 SQ FT

STAGE I
EE=0.00 SQ FT
TS=76.00 SQ FT
BS=0.00 SQ FT
E=174.00 SQ FT
T=6.00 SQ FT
POE=0.00 SQ FT

136+00.00

664.39

0 WM

0 San.

0 GM

135+63.75

664.47

135+00.00

664.70

STAGE I
EE=379.00 SQ FT
TS=216.00 SQ FT
BS=0.00 SQ FT
E=342.00 SQ FT
T=12.00 SQ FT
POE=0.00 SQ FT

DESIGNED	- MK	REVISED	-
DRAWN	- DW	REVISED	-
CHECKED	- MH	REVISED	-
DATE	- 12/20/2010	REVISED	-

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 11 OF 47 SHEETS | STA. 135+00.00 TO STA. 136+54.44

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	178
		CONTRACT NO. 63541		
	ILLINOIS FED. AID PROJECT			

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PROFILE	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	GRADES CHECKED		
NO.	B.M. NOTED		
	STRUCTURE NOTATNS CHKD		

PLAN	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	ALIGNMENT CHECKED		
NO.	RT. OF WAY CHECKED		
	CADD FILE NAME		

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rjngroup
Excellence through Ownership
2300 West Road Street
Wheaton, IL 60187

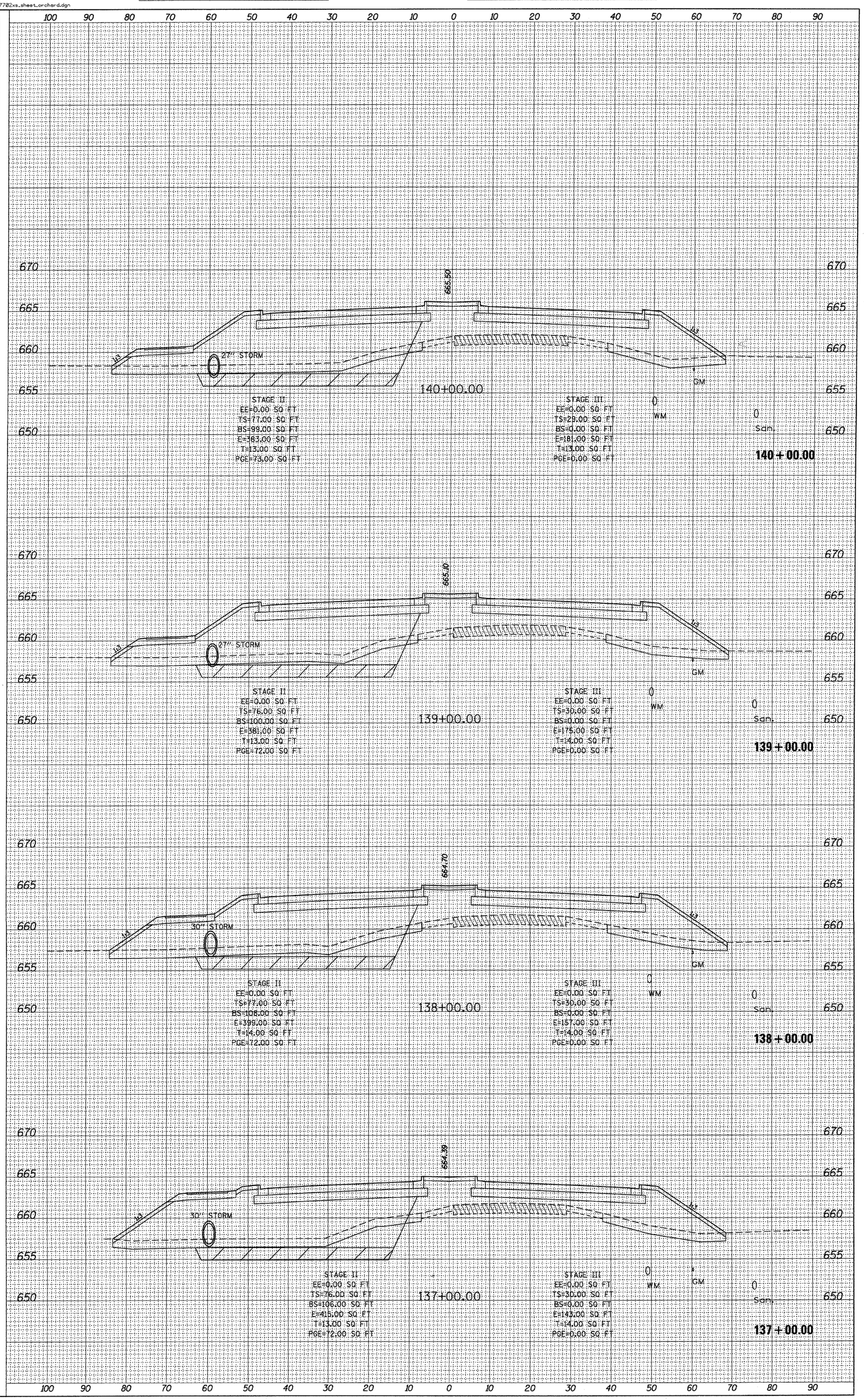
DESIGNED	-	MK
DRAWN	-	DW
CHECKED	-	MH
DATE	-	12/20/2010

REVISED	-	
REVISED	-	
REVISED	-	
REVISED	-	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 12 OF 47 SHEETS | STA. 137+00.00 | TO STA. 140+00.00



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	179
		CONTRACT NO. 63541		
	ILLINOIS FED. AID PROJECT			

PROFILE		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	GRADES CHECKED		
	B.M. NOTED		
NO.	STRUCTURE NOTATIONS CHKD		

PLAN		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	ALIGNMENT CHECKED		
	RT. OF WAY CHECKED		
NO.	CADD FILE NAME		

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rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, IL 60187

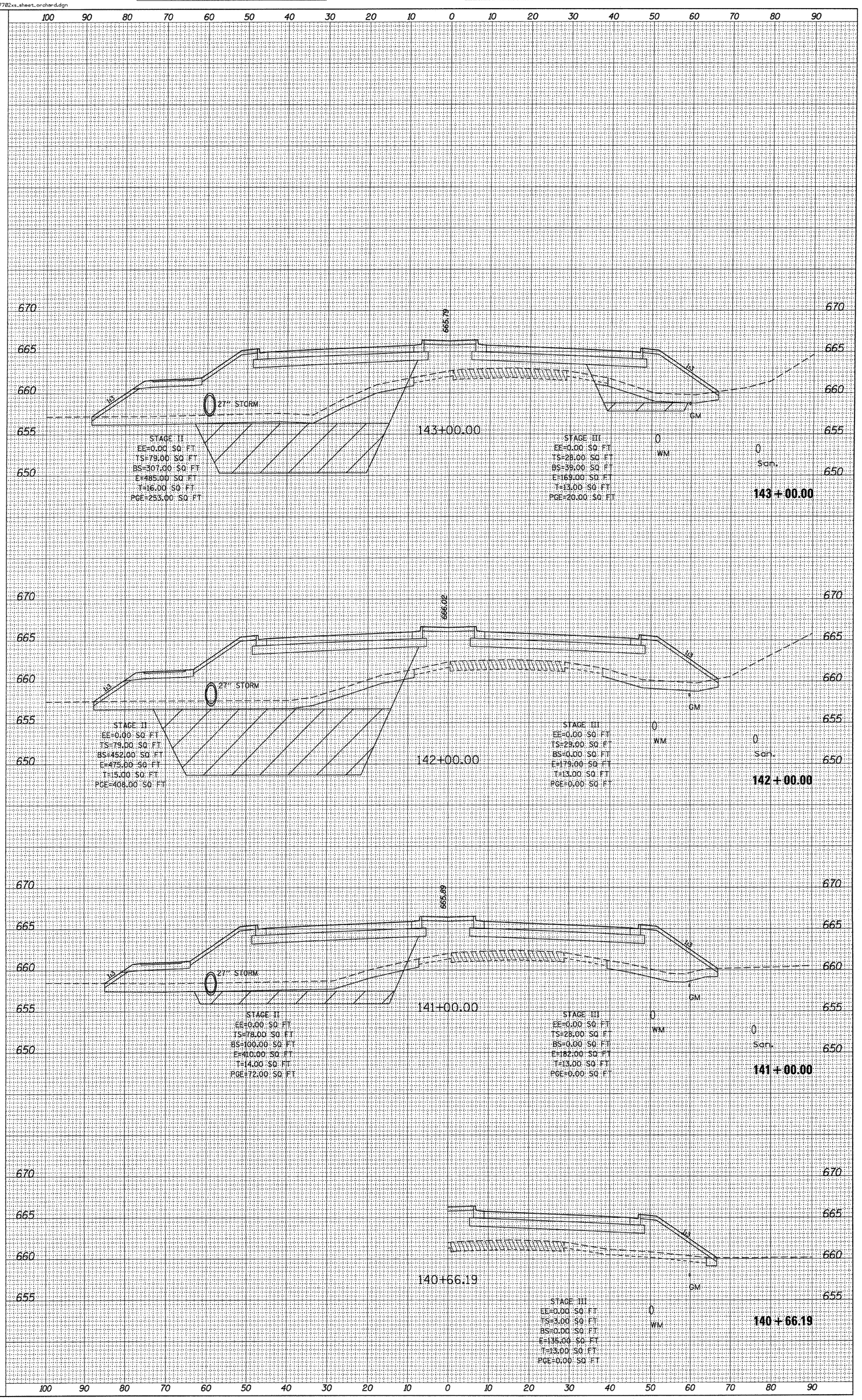
	DESIGNED	-	MK
	DRAWN	-	DW
	CHECKED	-	MH
DATE	-	12/20/2010	

REVISED	-
REVISED	-
REVISED	-
REVISED	-

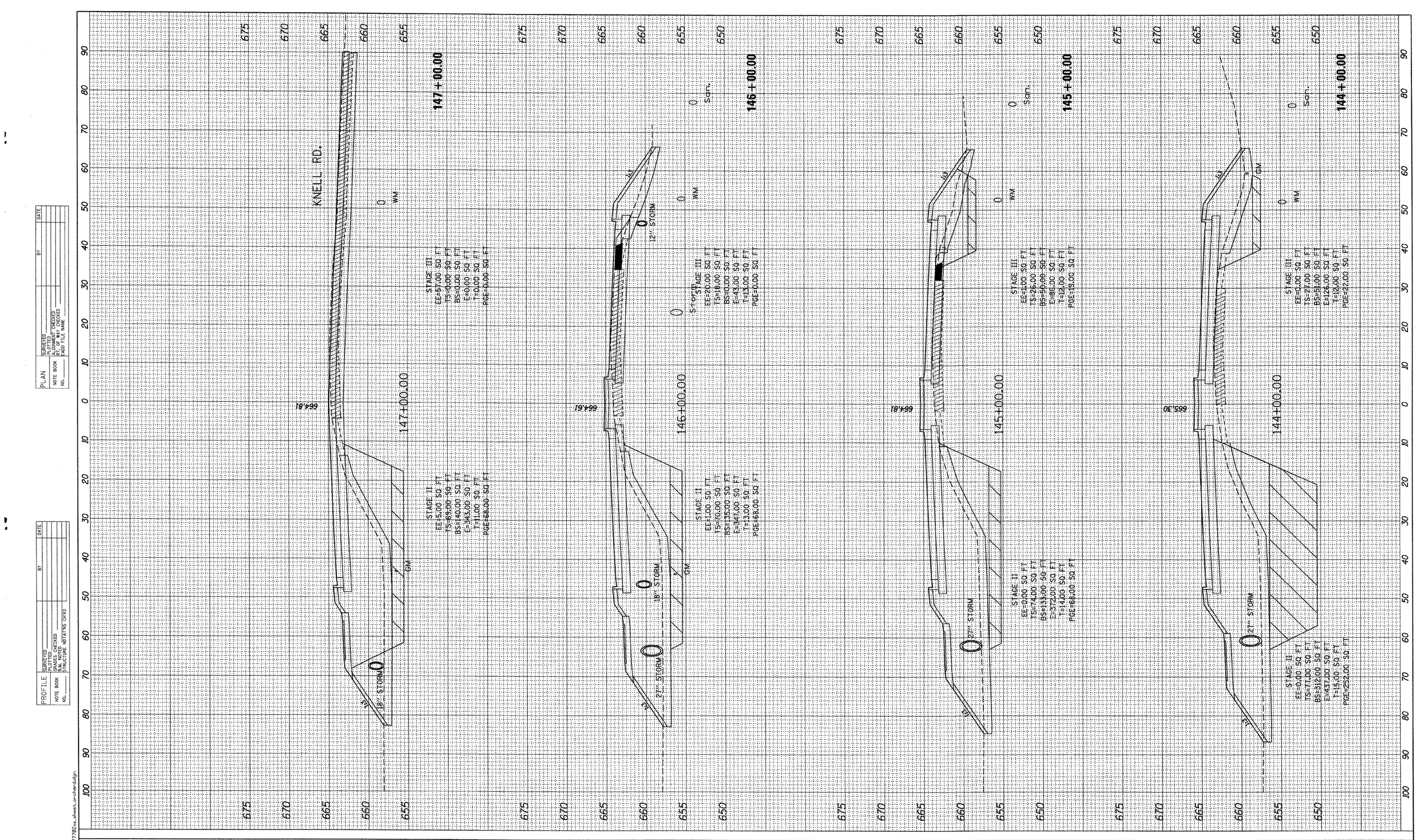
KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10'
SHEET NO. 13 OF 47 SHEETS
STA. 140+66.19 TO STA. 143+00.00



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	180
ILLINOIS FED. AID PROJECT		CONTRACT NO. 63541		



PLAN	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	CROSS CHECKED		
NO.	ALIGNMENT CHECKED		
	RT. OF WAY CHECKED		
	CAD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	CROSS CHECKED		
NO.	SAN. MANH.		
	STRUCTURE NOTATNS CHKD		

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12/17/2010
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rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED	MK	REVISED -
DRAWN	DW	REVISED -
CHECKED	MH	REVISED -
DATE	12/20/2010	REVISED -

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 14 OF 47 SHEETS | STA. 144+00.00 TO STA. 147+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	181
		CONTRACT NO. 63541		
	ILLINOIS FED. AID PROJECT			

PLAN	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	ALIGNMENT CHECKED		
NO.	RT. OF WAY CHECKED		
	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	GRADES CHECKED		
NO.	S.M. NOTED		
	STRUCTURE NOTATIONS CHKD		

150+00.00

666.30

150+00.00

0 AWM 0 WM

STAGE III
EE=70.00 SQ.FT
TS=6.00 SQ.FT
BS=0.00 SQ.FT
E=21.00 SQ.FT
T=3.00 SQ.FT
PGE=0.00 SQ.FT

21" STORM

18" STORM

STAGE II
EE=117.00 SQ.FT
TS=31.00 SQ.FT
BS=0.00 SQ.FT
E=92.00 SQ.FT
T=6.00 SQ.FT
PGE=0.00 SQ.FT

GM

149+00.00

665.80

149+00.00

0 AWM 0 WM

STAGE III
EE=62.00 SQ.FT
TS=4.00 SQ.FT
BS=0.00 SQ.FT
E=31.00 SQ.FT
T=3.00 SQ.FT
PGE=0.00 SQ.FT

15" STORM

18" STORM

STAGE II
EE=113.00 SQ.FT
TS=33.00 SQ.FT
BS=0.00 SQ.FT
E=166.00 SQ.FT
T=8.00 SQ.FT
PGE=0.00 SQ.FT

GM

148+00.00

665.30

148+00.00

0 AWM 0 WM

STAGE III
EE=52.00 SQ.FT
TS=14.00 SQ.FT
BS=0.00 SQ.FT
E=6.00 SQ.FT
T=3.00 SQ.FT
PGE=0.00 SQ.FT

15" STORM

18" STORM

STAGE II
EE=6.00 SQ.FT
TS=11.00 SQ.FT
BS=133.00 SQ.FT
E=355.00 SQ.FT
T=10.00 SQ.FT
PGE=46.00 SQ.FT

GM

KNELL RD.

664.84

0 WM

147+06.60

STAGE III
EE=56.00 SQ.FT
TS=0.00 SQ.FT
BS=0.00 SQ.FT
E=0.00 SQ.FT
T=0.00 SQ.FT
PGE=0.00 SQ.FT

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rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

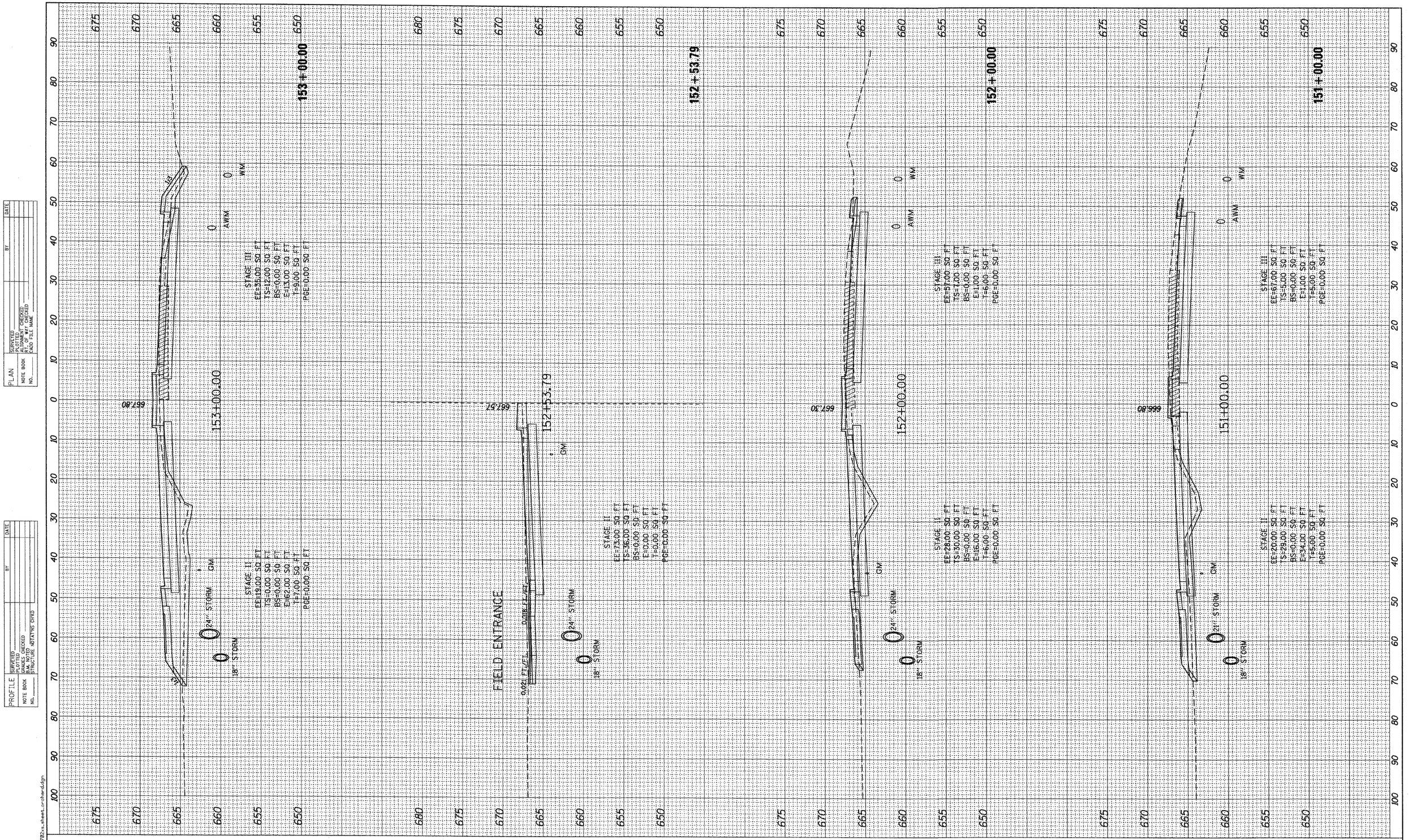
DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 15 OF 47 SHEETS | STA. 147+06.60 TO STA. 150+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	182
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		



PLAN	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	ALIGNMENT CHECKED		
NO.____	RT. OF WAY CHECKED		
	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	DRAWN/TRACED		
NO.____	STRUCTURE NOTATIONS CHKD		

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Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED	- MK	REVISED -
DRAWN	- DW	REVISED -
CHECKED	- MH	REVISED -
DATE	- 12/20/2010	REVISED -

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 16 OF 47 SHEETS | STA. 151+00.00 TO STA. 153+00.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	183
		CONTRACT NO. 63541		
	ILLINOIS FED. AID PROJECT			

PLAN	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	ALIGNMENT CHECKED			
NO.____	RT. OF WAY CHECKED			
	CADD FILE NAME			

PROFILE	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	ALIGNMENT CHECKED			
NO.____	BM & NOTES			
	STRUCTURE NOTATNS CHKD			

156+00.00

669.30

GM

AWM

0

WM

STAGE III
EE=24.00 SQ FT
TS=15.00 SQ FT
BS=0.00 SQ FT
E=171.00 SQ FT
T=6.00 SQ FT
PGE=0.00 SQ FT

24" STORM

155+00.00

668.70

COMMERCIAL ENTRANCE
0.024 FT./FT.

STAGE III
EE=57.00 SQ FT
TS=0.00 SQ FT
BS=0.00 SQ FT
E=0.00 SQ FT
T=0.00 SQ FT
PGE=0.00 SQ FT

42" STORM

STAGE II
EE=1.00 SQ FT
TS=32.00 SQ FT
BS=0.00 SQ FT
E=80.00 SQ FT
T=4.00 SQ FT
PGE=0.00 SQ FT

154+90.40

668.66

COMMERCIAL ENTRANCE
0.028 FT./FT.

154+00.00

668.30

STAGE III
EE=23.00 SQ FT
TS=12.00 SQ FT
BS=0.00 SQ FT
E=21.00 SQ FT
T=9.00 SQ FT
PGE=0.00 SQ FT

42" STORM

STAGE II
EE=2.00 SQ FT
TS=32.00 SQ FT
BS=0.00 SQ FT
E=93.00 SQ FT
T=5.00 SQ FT
PGE=0.00 SQ FT

18" STORM

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Excellence through Ownership

200 West Front Street
Wheaton, Il 60187

DESIGNED	- MK	REVISED	-
DRAWN	- DW	REVISED	-
CHECKED	- MH	REVISED	-
DATE	- 12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 17 OF 47 SHEETS | STA. 154+00.00 TO STA. 156+00.00

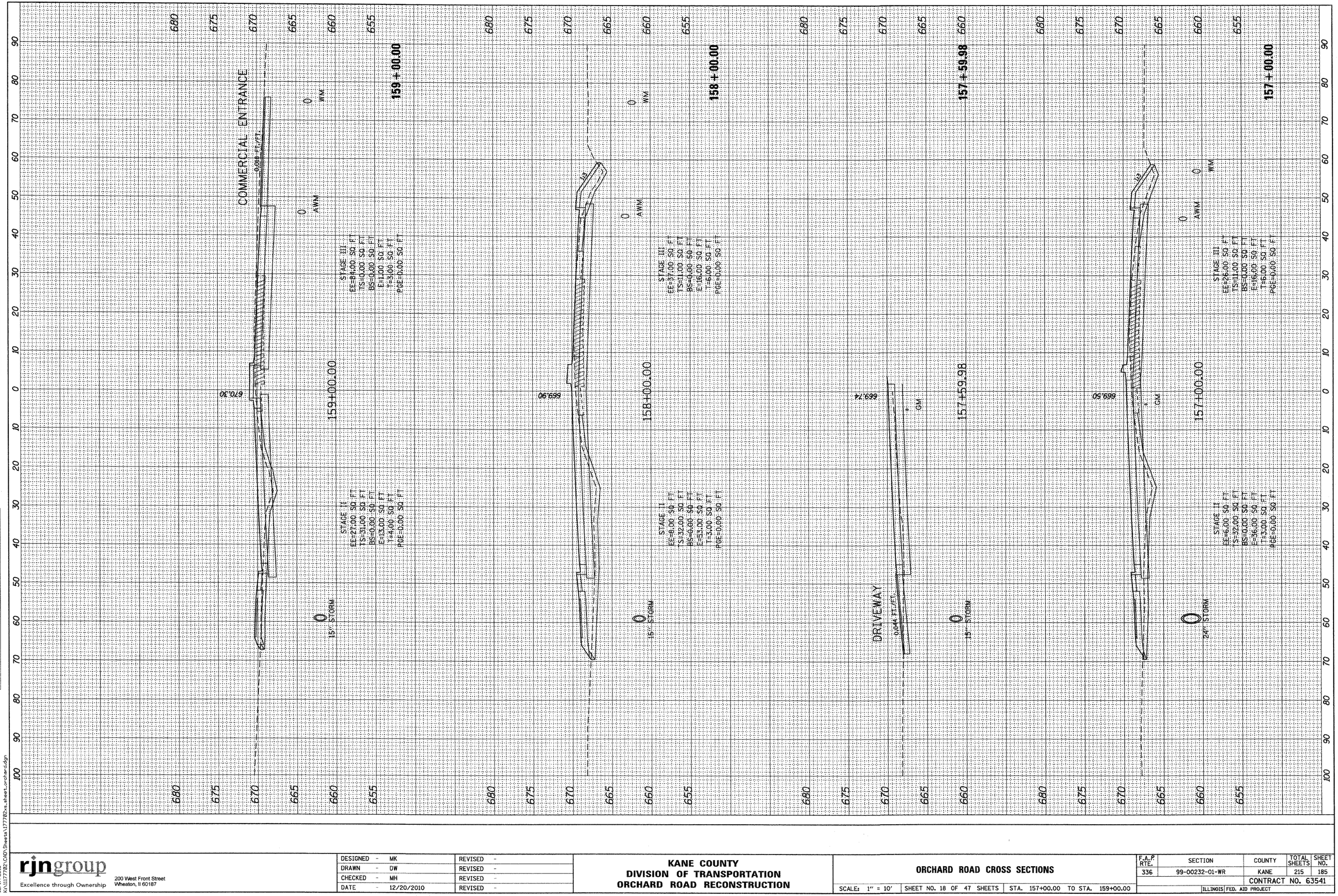
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	184
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

PLAN

	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	ALIGNMENT CHECKED		
NO.____	P.I. OF MAY CHECKED		
	CADD FILE NAME		

PROFILE

	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	DRAWN BY		
NO.____	CHECKED		
	STRUCTURE NO(S)/MS CHKD		



DESIGNED	MK	REVISED	-
DRAWN	DW	REVISED	-
CHECKED	MH	REVISED	-
DATE	12/20/2010	REVISED	-

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 18 OF 47 SHEETS | STA. 157+00.00 TO STA. 159+00.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	185
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

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PLAN		BY	DATE
	SURVEYED		
	PLOTTED		
	ALIGNMENT CHECKED		
NOTE BOOK	RT. OF WAY CHECKED		
NO.	CADD FILE NAME		

PROFILE		BY	DATE
	SURVEYED		
	PLOTTED		
	GRADES CHECKED		
NOTE BOOK	S.M. NOTED		
NO.	STRUCTURE NOTATNS CHKD		

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rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 19 OF 47 SHEETS | STA. 159+09.80 TO STA. 161+18.61

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	186
		CONTRACT NO. 63541		
	ILLINOIS FED. AID PROJECT			

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	GRADES CHECKED		
NO.	BLM. NOTED		
	STRUCTURE NOTATNS CHKD		

PLAN	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	ALIGNMENT CHECKED		
NO.	RT. OF WAY CHECKED		
	CADD FILE NAME		

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rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, IL 60187

DESIGNED	-	MK
DRAWN	-	DW
CHECKED	-	MH
DATE	-	12/20/2010

REVISED	-	
REVISED	-	
REVISED	-	
REVISED	-	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10'
SHEET NO. 20 OF 47 SHEETS
STA. 162+00.00 TO STA. 164+00.00

F.A.P. RTE. 336
SECTION 99-00232-01-WR
COUNTY KANE
CONTRACT NO. 63541
TOTAL SHEETS 215
SHEET NO. 187
ILLINOIS FED. AID PROJECT

100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90

675 670 665 660 680 655

DRIVEWAY

670.81

0.012 FT /FT

GM

164+04.00

164 + 04.00

STAGE II
EE=6.00 SQ FT
TS=0.00 SQ FT
BS=0.00 SQ FT
E=43.00 SQ FT
T=0.00 SQ FT
PGE=0.00 SQ FT

670.86

ROCHESTER DR.

GM

164+00.00

AWM

WM

24" STORM

164 + 00.00

STAGE II
EE=0.00 SQ FT
TS=32.00 SQ FT
BS=0.00 SQ FT
E=106.00 SQ FT
T=11.00 SQ FT
PGE=0.00 SQ FT

STAGE III
EE=1.00 SQ FT
TS=10.00 SQ FT
BS=0.00 SQ FT
E=20.00 SQ FT
T=0.00 SQ FT
PGE=0.00 SQ FT

671.19

ROCHESTER DR.

163+71.64

AWM

WM

21" STORM

163 + 71.64

STAGE III
EE=52.00 SQ FT
TS=0.00 SQ FT
BS=0.00 SQ FT
E=0.00 SQ FT
T=0.00 SQ FT
PGE=0.00 SQ FT

671.64

GM

163+00.00

AWM

18" STORM

WM

163 + 00.00

STAGE II
EE=0.00 SQ FT
TS=35.00 SQ FT
BS=0.00 SQ FT
E=138.00 SQ FT
T=6.00 SQ FT
PGE=0.00 SQ FT

STAGE III
EE=0.00 SQ FT
TS=5.00 SQ FT
BS=0.00 SQ FT
E=15.00 SQ FT
T=6.00 SQ FT
PGE=0.00 SQ FT

671.50

GM

162+00.00

AWM

WM

162 + 00.00

STAGE II
EE=8.00 SQ FT
TS=31.00 SQ FT
BS=0.00 SQ FT
E=25.00 SQ FT
T=6.00 SQ FT
PGE=0.00 SQ FT

STAGE III
EE=7.00 SQ FT
TS=13.00 SQ FT
BS=0.00 SQ FT
E=26.00 SQ FT
T=12.00 SQ FT
PGE=0.00 SQ FT

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	ALIGNMENT CHECKED		
NOTE BOOK	RT. OF WAY CHECKED		
NO.____	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	DRAWN BY		
NOTE BOOK	CHECKED BY		
NO.____	STRUCTURE NO'S/ITNS CHKD		

168+00.00

665.54

STAGE III
EE=56.00 SQ FT
TS=12.00 SQ FT
BS=0.00 SQ FT
E=14.00 SQ FT
T=10.00 SQ FT
PGE=0.00 SQ FT

STAGE II
EE=54.00 SQ FT
TS=27.00 SQ FT
BS=0.00 SQ FT
E=22.00 SQ FT
T=10.00 SQ FT
PGE=0.00 SQ FT

167+00.00

666.73

STAGE III
EE=30.00 SQ FT
TS=16.00 SQ FT
BS=0.00 SQ FT
E=15.00 SQ FT
T=7.00 SQ FT
PGE=0.00 SQ FT

STAGE II
EE=5.00 SQ FT
TS=32.00 SQ FT
BS=0.00 SQ FT
E=985.00 SQ FT
T=5.00 SQ FT
PGE=0.00 SQ FT

166+00.00

668.14

STAGE III
EE=8.00 SQ FT
TS=9.00 SQ FT
BS=0.00 SQ FT
E=11.00 SQ FT
T=4.00 SQ FT
PGE=0.00 SQ FT

STAGE II
EE=0.00 SQ FT
TS=29.00 SQ FT
BS=0.00 SQ FT
E=97.00 SQ FT
T=6.00 SQ FT
PGE=0.00 SQ FT

165+00.00

669.64

24" STORM

STAGE III
EE=1.00 SQ FT
TS=9.00 SQ FT
BS=0.00 SQ FT
E=16.00 SQ FT
T=5.00 SQ FT
PGE=0.00 SQ FT

STAGE II
EE=0.00 SQ FT
TS=33.00 SQ FT
BS=0.00 SQ FT
E=119.00 SQ FT
T=5.00 SQ FT
PGE=0.00 SQ FT

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rjngroup
Excellence through Ownership

200 West Front Street
Wheaton, Il 60187

DESIGNED	- MK	REVISED	-
DRAWN	- DW	REVISED	-
CHECKED	- MH	REVISED	-
DATE	- 12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 21 OF 47 SHEETS | STA. 165+00.00 TO STA. 168+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	188
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

PLAN	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	DRAWN / CHECKED		
NO.____	R.O.W. / EASEMENT CHECKED		
	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	DRAWN / CHECKED		
NO.____	ELEV. NOTED		
	STRUCTURE NOTATIONS CHKD		

171+62.63

665.87

171+00.00

STAGE III
EE=27.00 SQ FT
TS=13.00 SQ FT
BS=0.00 SQ FT
E=24.00 SQ FT
T=11.00 SQ FT
POE=0.00 SQ FT

STAGE II
EE=23.00 SQ FT
TS=26.00 SQ FT
BS=0.00 SQ FT
E=11.00 SQ FT
T=12.00 SQ FT
POE=0.00 SQ FT

EX. 30" STORM

171 + 00.00

665.37

170+00.00

STAGE III
EE=39.00 SQ FT
TS=41.00 SQ FT
BS=0.00 SQ FT
E=22.00 SQ FT
T=11.00 SQ FT
POE=0.00 SQ FT

STAGE II
EE=33.00 SQ FT
TS=29.00 SQ FT
BS=0.00 SQ FT
E=11.00 SQ FT
T=12.00 SQ FT
POE=0.00 SQ FT

EX. 30" STORM

170 + 00.00

665.09

169+00.00

STAGE III
EE=57.00 SQ FT
TS=13.00 SQ FT
BS=0.00 SQ FT
E=13.00 SQ FT
T=11.00 SQ FT
POE=0.00 SQ FT

STAGE II
EE=43.00 SQ FT
TS=31.00 SQ FT
BS=0.00 SQ FT
E=8.00 SQ FT
T=11.00 SQ FT
POE=0.00 SQ FT

EX. 30" STORM

169 + 00.00

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rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED - MK		REVISED -
DRAWN - DW		REVISED -
CHECKED - MH		REVISED -
DATE - 12/20/2010		REVISED -

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

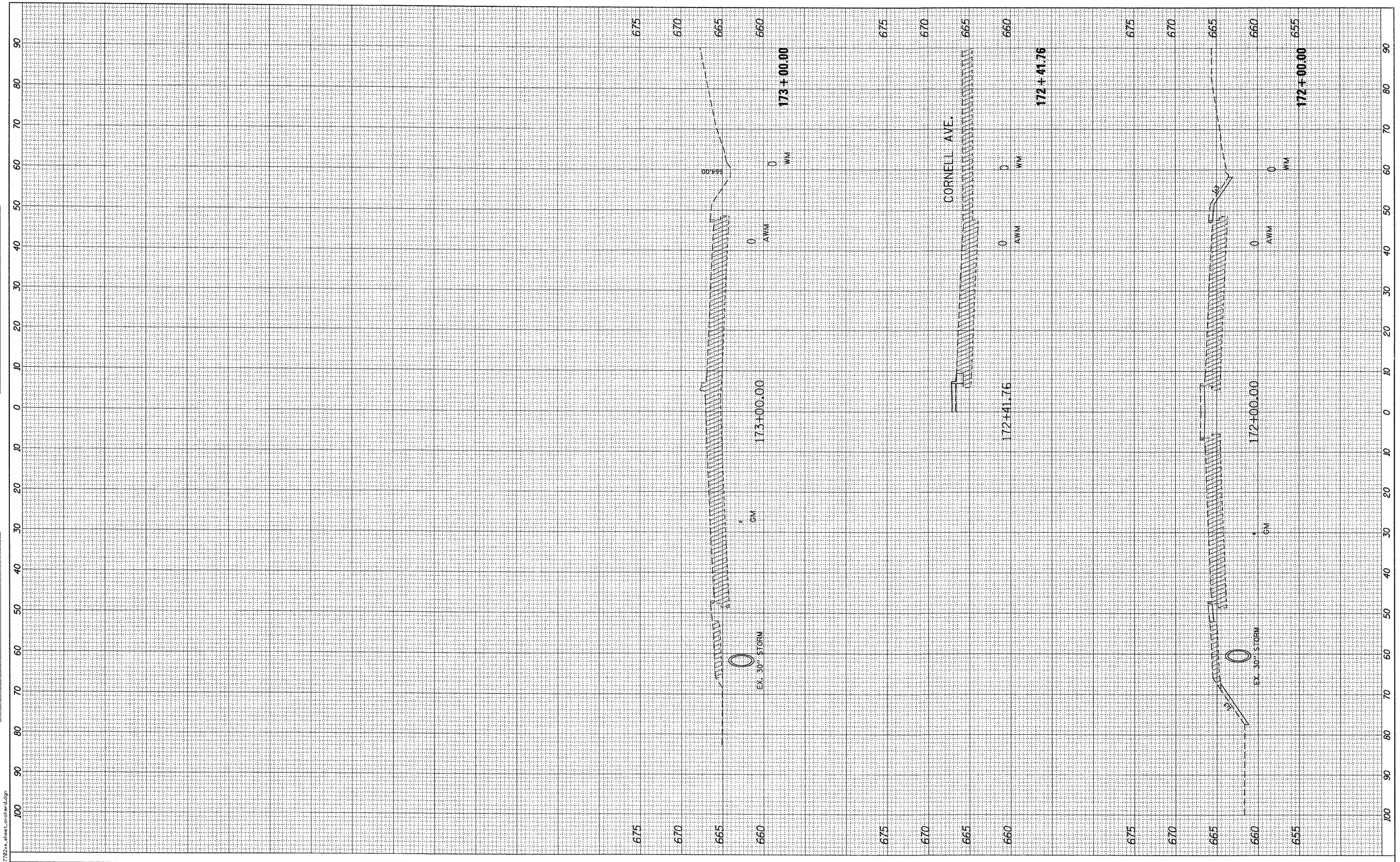
ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 22 OF 47 SHEETS | STA. 169+00.00 TO STA. 171+62.63

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	189
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

PLAN	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	ALIGNMENT CHECKED			
NO.	RT. OF WAY CHECKED			
	CADD FILE NAME			

PROFILE	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	GRADES CHECKED			
NO.	B.M. NOTED			
	STRUCTURE NO.TAYNS CHKD			



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Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED	MK	REVISED -
DRAWN	DW	REVISED -
CHECKED	MH	REVISED -
DATE	12/20/2010	REVISED -

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

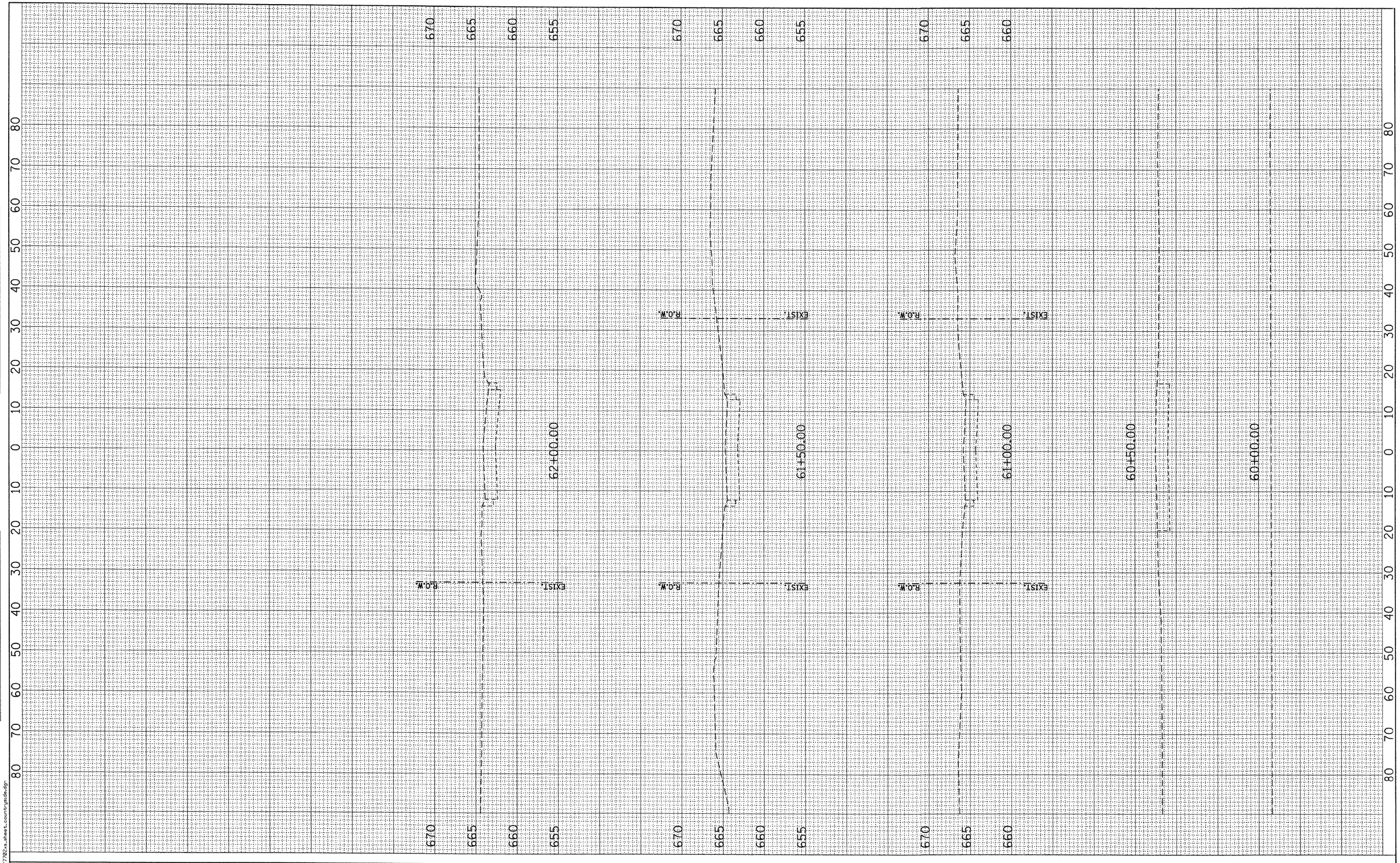
ORCHARD ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 23 OF 47 SHEETS | STA. 172+00.00 TO STA. 173+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	190
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

PLAN	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	CROSS CHECKED		
NO.	R.O.W. CHECKED		
	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	CROSS CHECKED		
NO.	UNL. NOTED		
	STRUCTURE NOTATNS CHKD		



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Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

DESIGNED	MK	REVISED -
DRAWN	DW	REVISED -
CHECKED	MH	REVISED -
DATE	12/20/2010	REVISED -

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

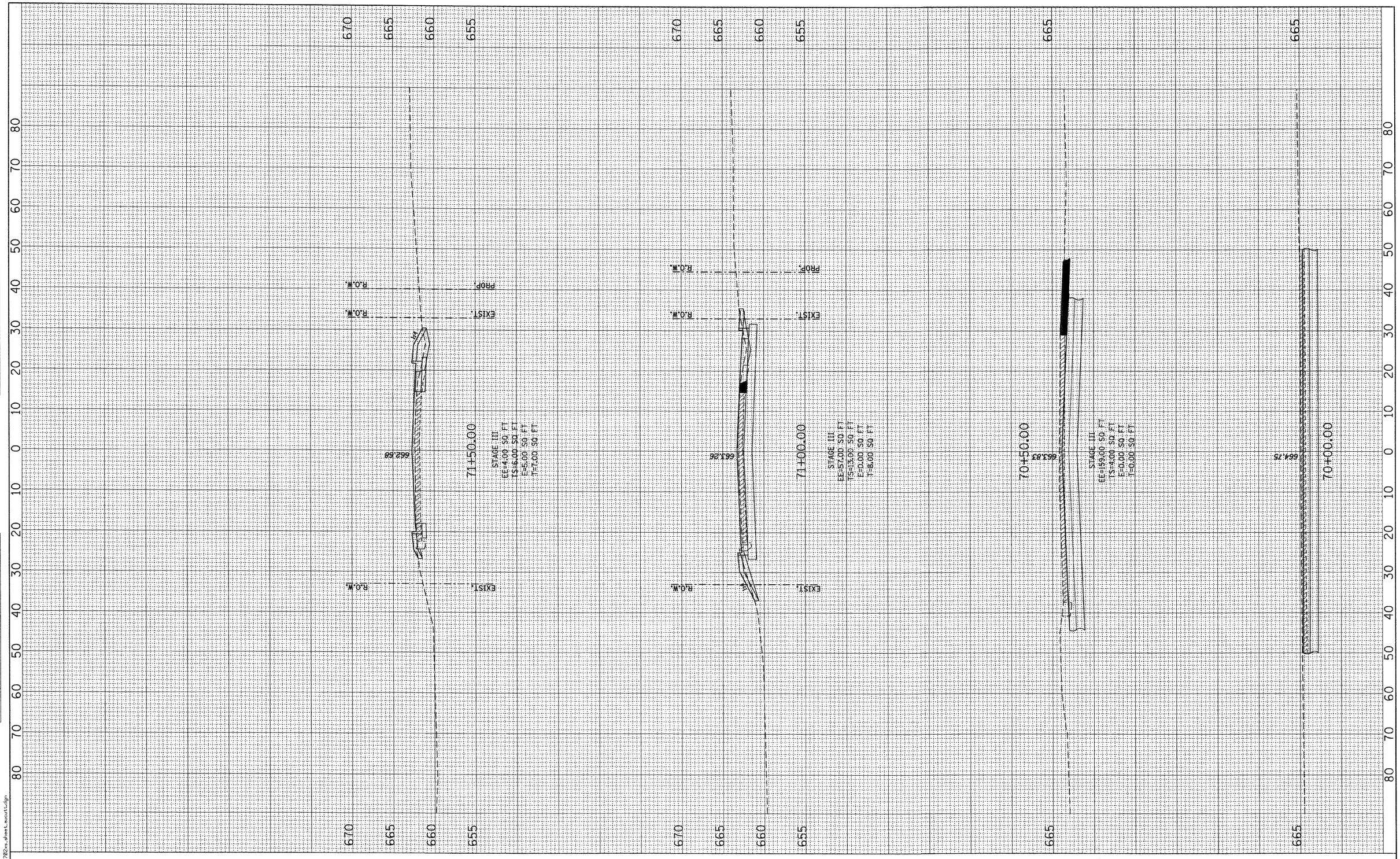
COUNTRYSIDE AVENUE CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 24 OF 47 SHEETS | STA. 60+00.00 TO STA. 62+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	191
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

PLAN	SURVEYED		BY	
	PLOTTED			
NOTE BOOK	ALIGNMENT CHECKED			
NO.	RT. OF WAY CHECKED			
	CADD FILE NAME			DATE

PROFILE	SURVEYED		BY	
	PLOTTED			
NOTE BOOK	GRADES CHECKED			
NO.	B.M. NOTED			
	STRUCTURE NO'S ATNS CHKD			DATE



DESIGNED - MK	REVISED -	KANE COUNTY DIVISION OF TRANSPORTATION ORCHARD ROAD RECONSTRUCTION	AUCUTT ROAD CROSS SECTIONS
DRAWN - DW	REVISED -		
CHECKED - MH	REVISED -		
DATE - 12/20/2010	REVISED -		SCALE: 1" = 10' | SHEET NO. 25 OF 47 SHEETS | STA. 70+00.00 TO STA. 71+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	192
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

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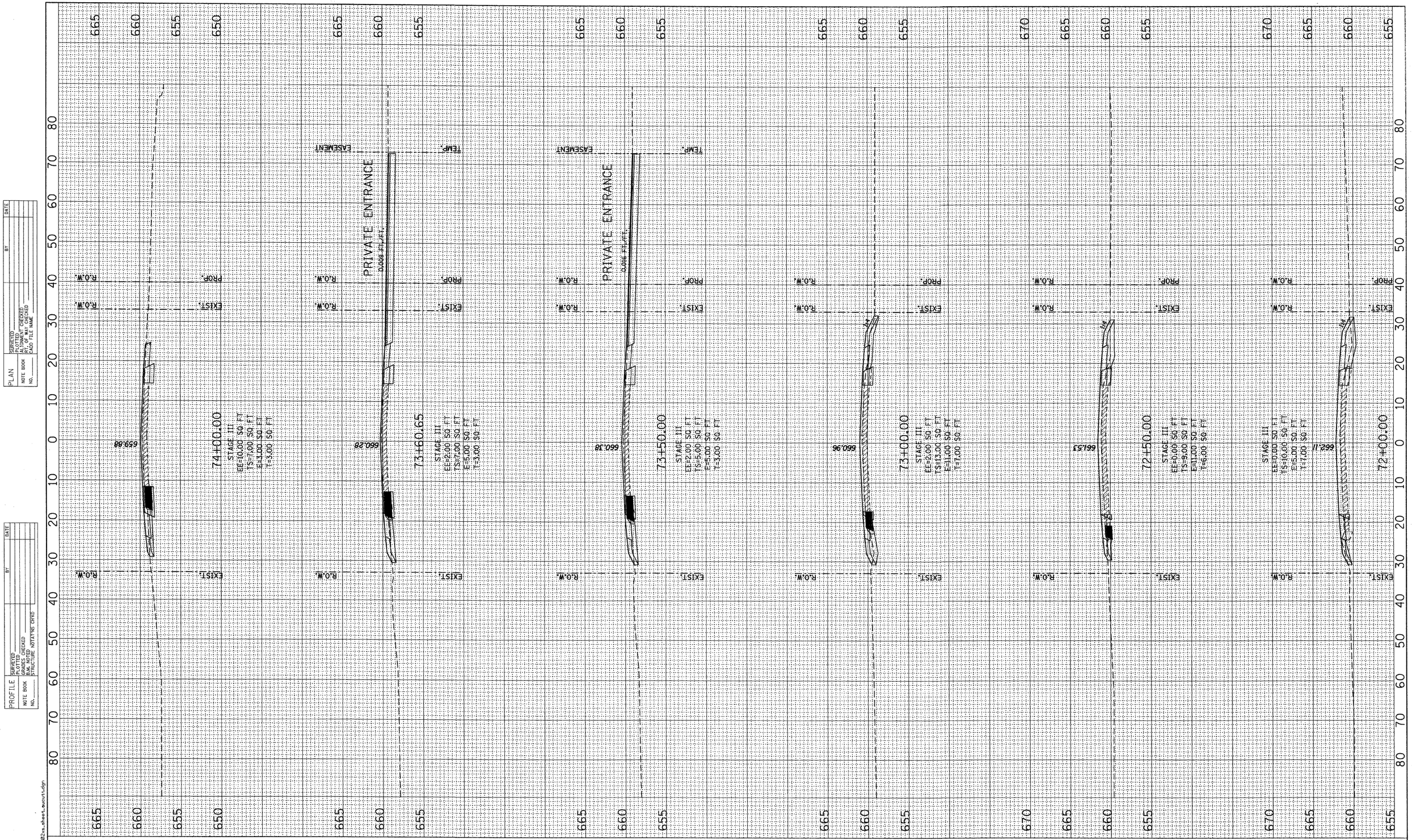

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PLOTTED
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R.O.W. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
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BY
DATE

PROFILE
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DESIGNED	- MK	REVISED -
DRAWN	- DW	REVISED -
CHECKED	- MH	REVISED -
DATE	- 12/20/2010	REVISED -

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

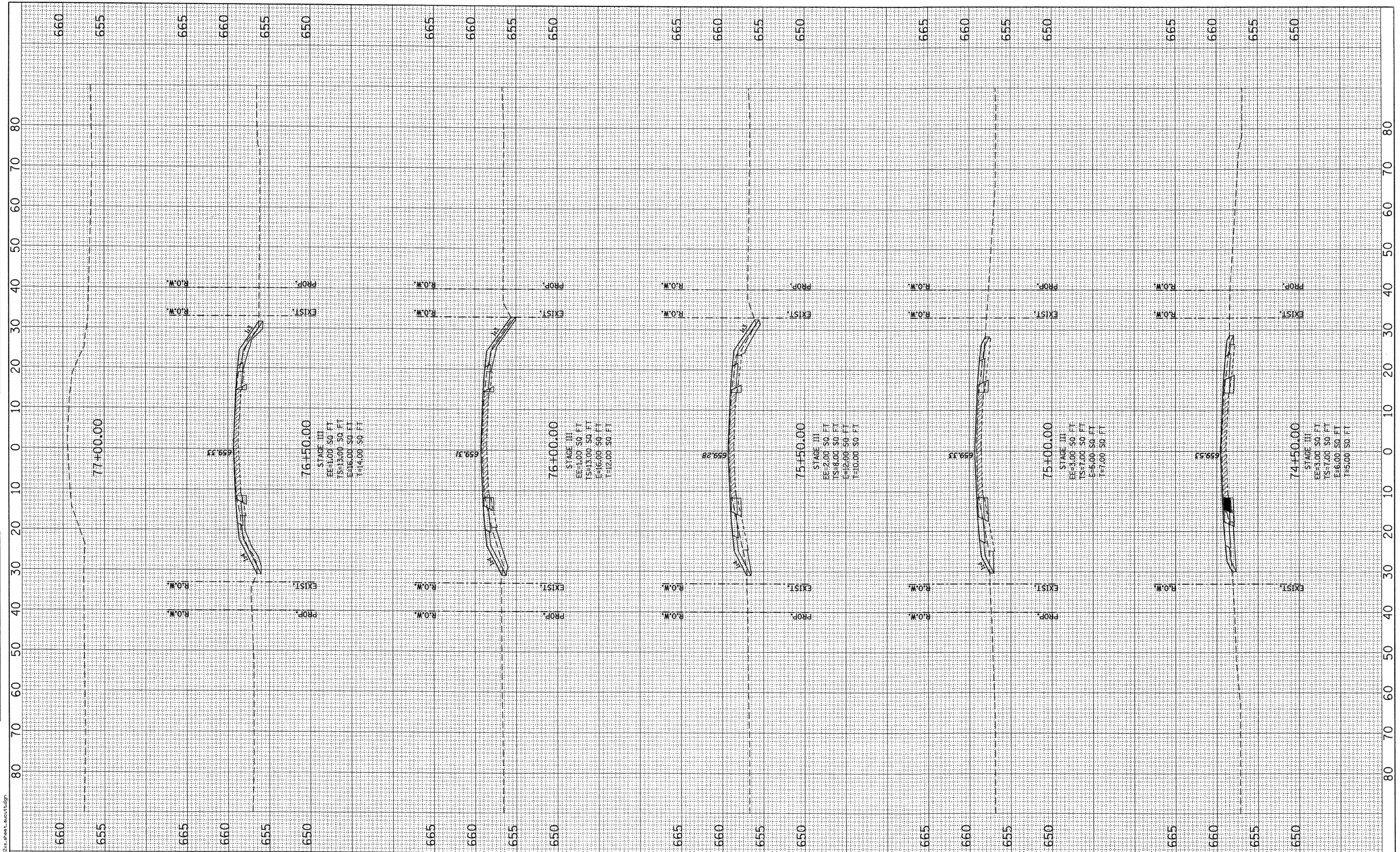
AUCUTT ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 26 OF 47 SHEETS | STA. 72+00.00 TO STA. 74+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	193
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	ALIGNMENT CHECKED		
NOTE BOOK	PT. OF BEG. CHECKED		
NO.	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
NOTE BOOK	BAR NOTED		
NO.	STRUCTURE NOTATNS CHKD		



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200 West Front Street
Wheaton, Il 60187

DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

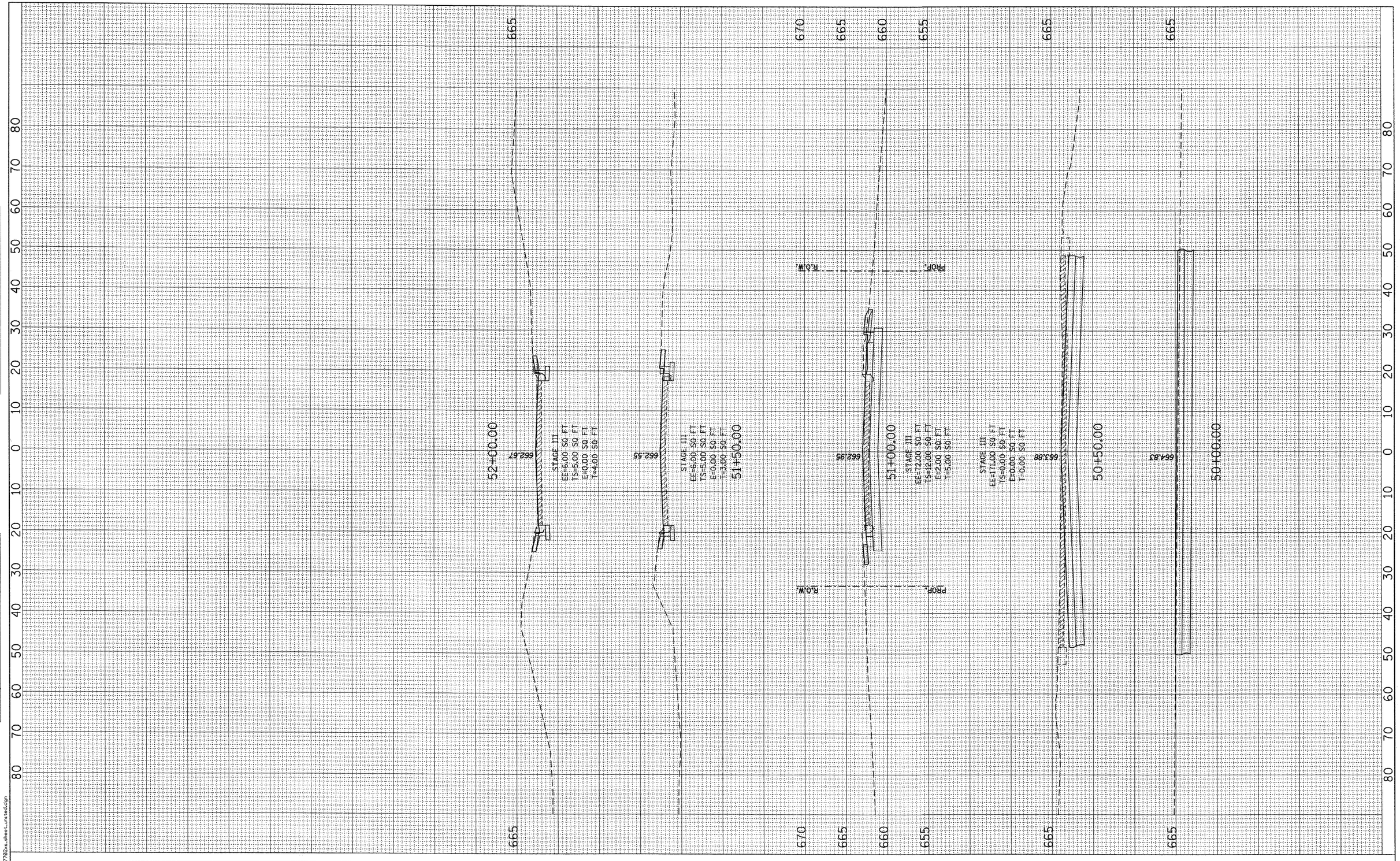
AUCUTT ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 27 OF 47 SHEETS | STA. 74+50.00 TO STA. 77+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	194
		CONTRACT NO. 63541		
	ILLINOIS FED. AID PROJECT			

PLAN	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	DRAWN / CHECKED			
NO.____	R.O.W. / EASEMENT			
	PLAT OF WAY CHECKED			
	BENCHMARK			
	CROSS FILE NAME			

PROFILE	SURVEYED		BY	DATE
	PLOTTED			
NOTE BOOK	DRAWN / CHECKED			
NO.____	B.M. NOTED			
	STRUCTURE (ROTATING GRID			



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DRAWN	- DW	REVISED	-
CHECKED	- MH	REVISED	-
DATE	- 12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

KNELL ROAD CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 28 OF 47 SHEETS | STA. 50+00.00 TO STA. 52+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	195
		CONTRACT NO. 63541		
	ILLINOIS FED. AID PROJECT			

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NOTE BOOK	ALIGNMENT CHECKED		
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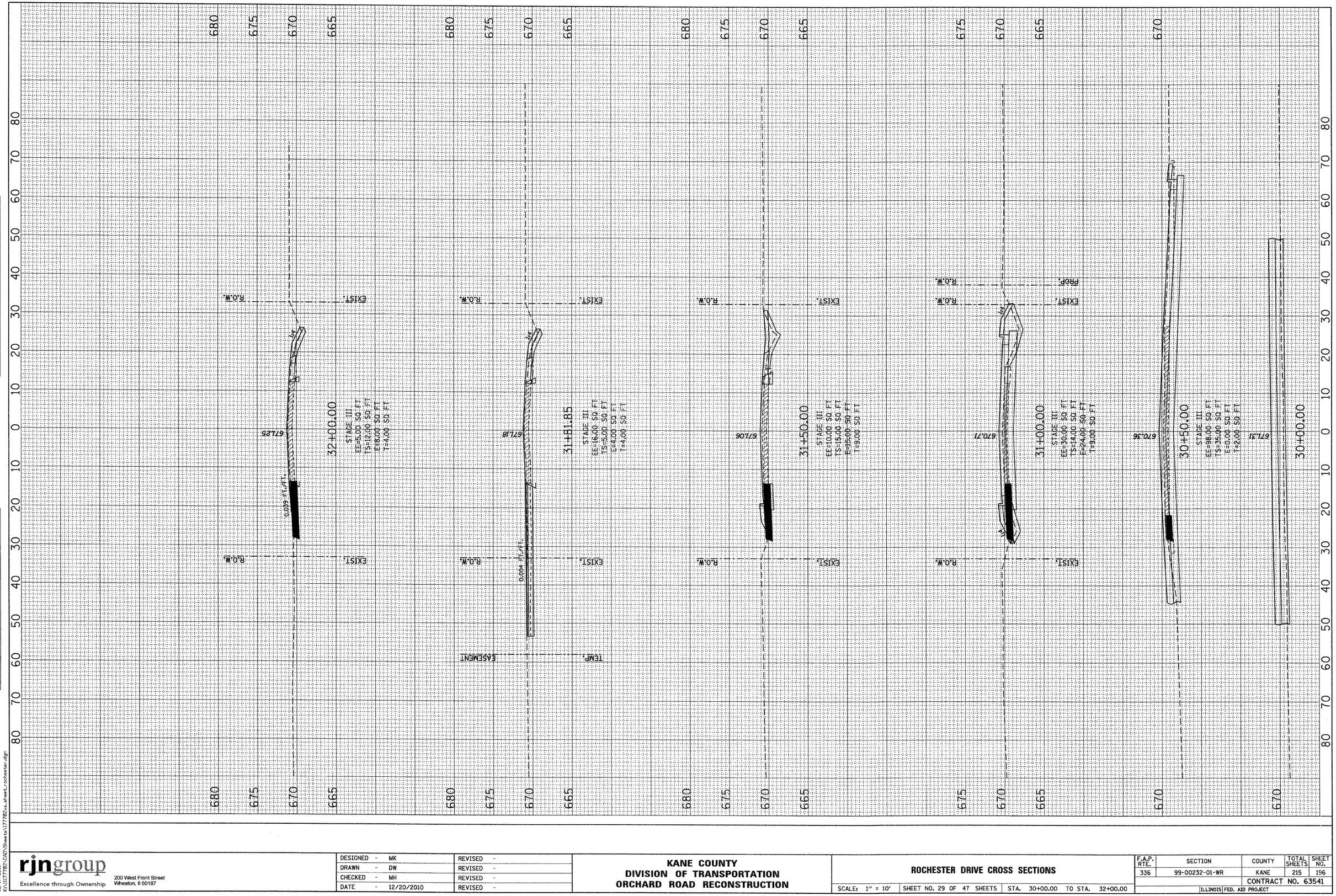
PROFILE	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	GRADES CHECKED		
NO.____	ALIGNMENT		
	STRUCTURE NO(S).(S) CHKD		



DESIGNED	- MK	REVISED -
DRAWN	- DW	REVISED -
CHECKED	- MH	REVISED -
DATE	- 12/20/2010	REVISED -

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Wheaton, Il 60187

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

ROCHESTER DRIVE CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 29 OF 47 SHEETS | STA. 30+00.00 TO STA. 32+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	196
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

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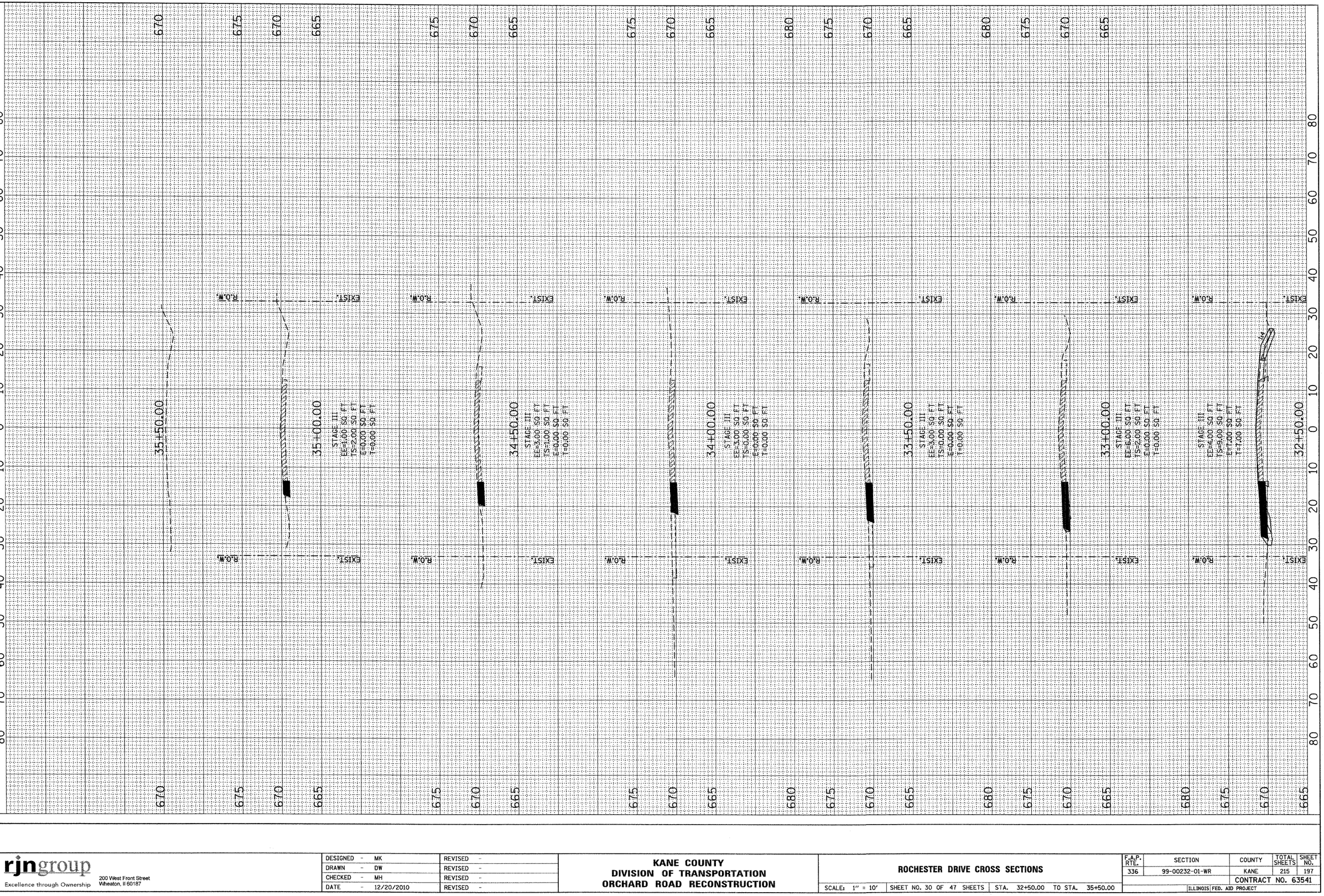
	ALIGNMENT CHECKED		
NOTE BOOK	R.O.W. CHECKED		
NO. ____	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
NOTE BOOK	S.M. NOTED		
NO. ____	STRUCTURE NO'S/ATN'S CHK'D		



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Wheaton, Il 60187

DESIGNED	- MK	REVISED	-
DRAWN	- DW	REVISED	-
CHECKED	- MH	REVISED	-
DATE	- 12/20/2010	REVISED	-

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

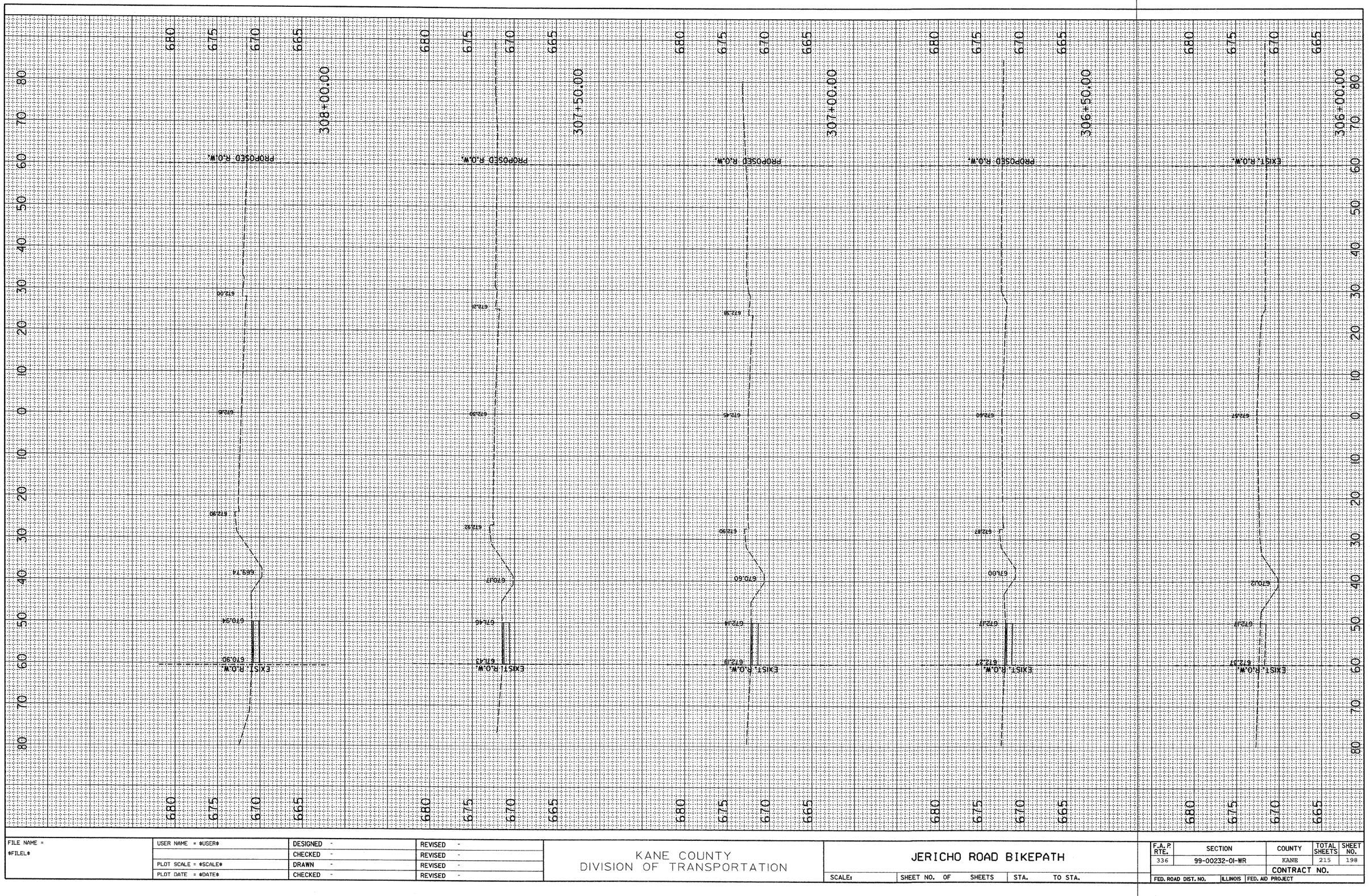
ROCHESTER DRIVE CROSS SECTIONS

SCALE: 1" = 10' | SHEET NO. 30 OF 47 SHEETS | STA. 32+50.00 TO STA. 35+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	197
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



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$FILE$		CHECKED -	REVISED -
	PLOT SCALE = $SCALE$	DRAWN -	REVISED -
	PLOT DATE = $DATE$	CHECKED -	REVISED -

KANE COUNTY
DIVISION OF TRANSPORTATION

JERICHO ROAD BIKEPATH

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	198
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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FINAL SURVEY	SURVEYED	BY	DATE
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NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

ORGINAL SURVEY	SURVEYED	BY	DATE
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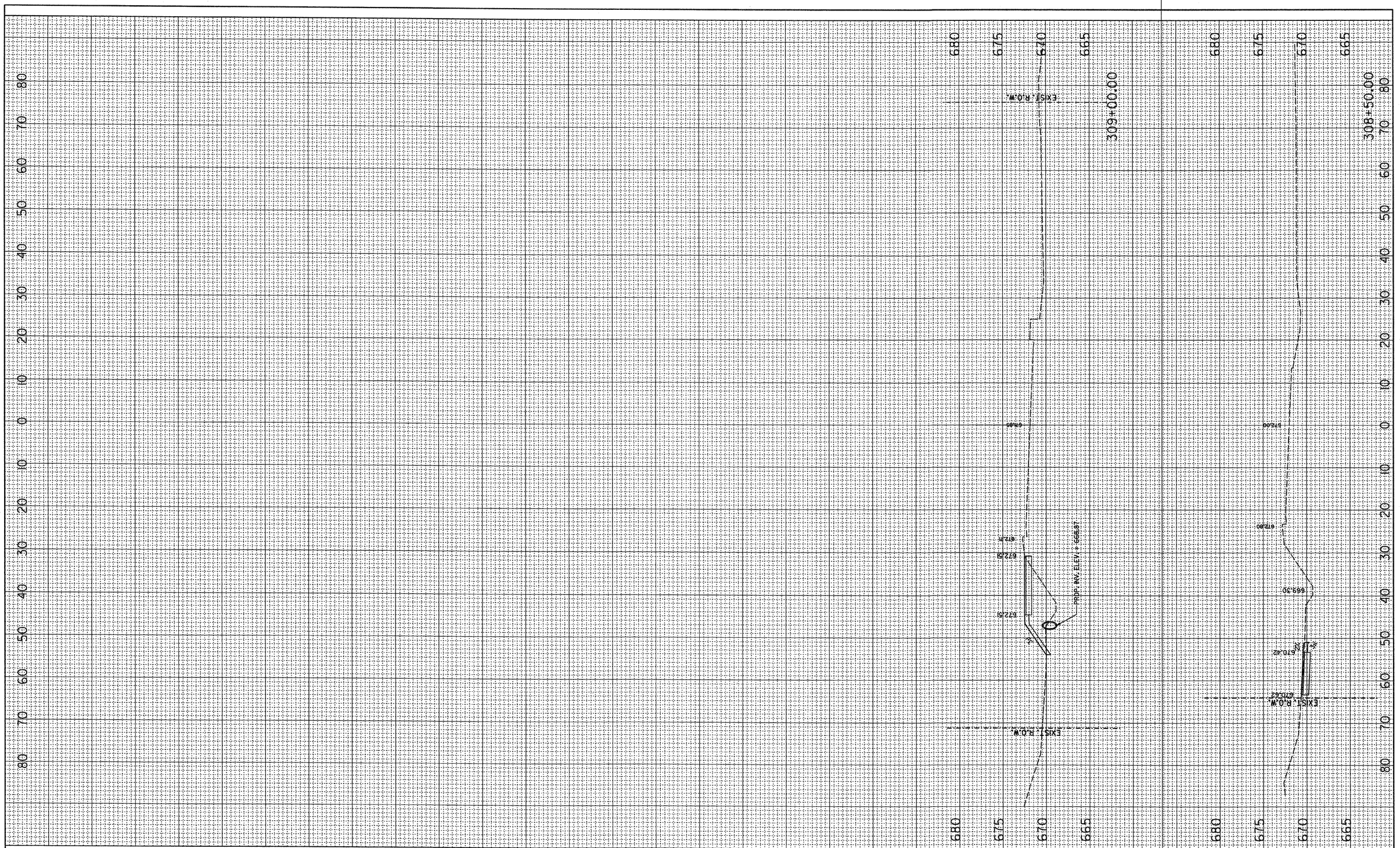
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		



FILE NAME =	USER NAME = *USER*	DESIGNED -	REVISED -
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	PLOT SCALE = *SCALE*	DRAWN -	REVISED -
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KANE COUNTY
DIVISION OF TRANSPORTATION

JERICHO ROAD BIKEPATH

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	199
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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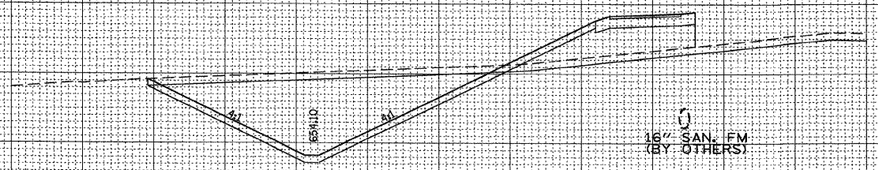
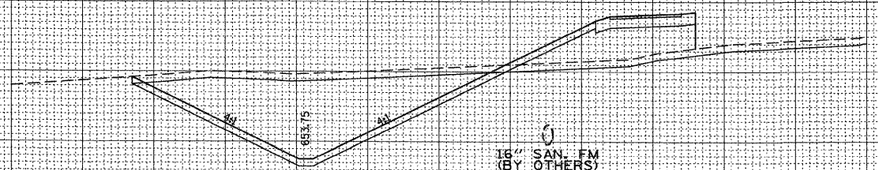
660 655 650 665



16" SAN. FM
(BY OTHERS)

COUNTRYSIDE OUTLET DITCH
EE=156.00 SQ FT
TS=25.00 SQ FT
E=0.00 SQ FT
T=25.00 SQ FT

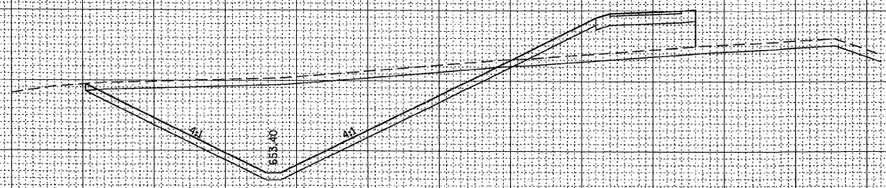
104 + 00.00



16" SAN. FM
(BY OTHERS)

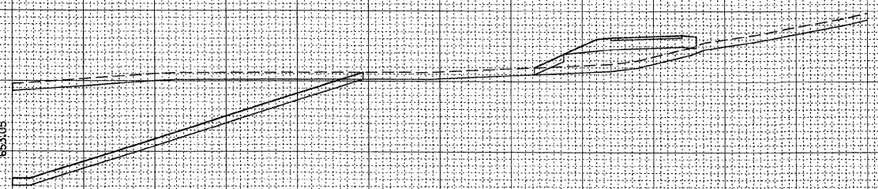
COUNTRYSIDE OUTLET DITCH
EE=169.00 SQ FT
TS=26.00 SQ FT
E=0.00 SQ FT
T=26.00 SQ FT

103 + 00.00



COUNTRYSIDE OUTLET DITCH
EE=211.00 SQ FT
TS=30.00 SQ FT
E=0.00 SQ FT
T=30.00 SQ FT

102 + 00.00



101 + 00.00

270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50

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ALIGNMENT CHECKED		
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NOTE BOOK		
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NOTE BOOK		
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STRUCTURE NOTATIONS CHKD		

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Wheaton, Il 60187

DESIGNED - MK	REVISED -	
DRAWN - DW	REVISED -	
CHECKED - MH	REVISED -	
DATE - 12/20/2010	REVISED -	

KANE COUNTY
DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

COUNTRYSIDE DETENTION BASIN OUTLET DITCH

SCALE: 1" = 10' | SHEET NO. 32 OF 47 SHEETS | STA. 101+00.00 TO STA. 104+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	KANE	215	200
		CONTRACT NO. 63541		
		ILLINOIS FED. AID PROJECT		